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# California and Western Medicine

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# Index—California and Western Medicine, Volume 51

## July to December, 1939

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#### Key to Abbreviations in This Index

- Or.—Original Article.  
C. R.—Case Report.  
B. M.—Bedside Medicine.  
Ed.—Editorial.  
E. C.—Editorial Comment.  
C. N.—Clinical Notes.  
L. M. H.—Lure of Medical History.

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# CALIFORNIA AND WESTERN MEDICINE

*Official Journal of the California Medical Association*

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President-Elect—Harry H. Wilson, 1919 Wilshire Boulevard, Los Angeles.	Chairman of Executive Committee—Philip K. Gilman, 2000 Van Ness Avenue, San Francisco.	Editor—George H. Kress, 450 Sutter Street, Room 2004, San Francisco.
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## Councilors

(In addition to the elected district and at-large Councilors, the Council has as ex officio members, the general officers and the Chairman of the Committee on Public Relations. Chairman of Council, Karl L. Schaupp; Secretary, George H. Kress.)

District Councilors		Councilors-at-Large	
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Second District—Los Angeles, Inyo and Mono Counties, George D. Maner (1942), 657 South Westlake Avenue, Los Angeles.	Sixth District—San Francisco County, Karl L. Schaupp (1940), 530 Medico-Dental Building, 490 Post Street, San Francisco.	William H. Kiger (1940), 911 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.	
Third District—Kern, San Luis Obispo, Santa Barbara and Ventura Counties, Louis A. Packard (1940), 563 Haberfelde Building, Bakersfield.	Seventh District—Alameda and Contra Costa Counties, Oliver D. Hamlin (1941), 389 Thirtieth Street, Oakland.	Philip K. Gilman (1941), 2000 Van Ness Avenue, San Francisco.	
Fourth District—Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare and Tuolumne Counties, Axel E. Anderson (1941), Medical Group Building, 1759 Fulton Street, Fresno.	Eighth District—Alpine, Amador, Butte, Colusa, Eldorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, Yolo and Yuba Counties, Frank A. MacDonald (1942), 822 Medico-Dental Building, 1127 Eleventh Street, Sacramento.	E. Earl Moody (1941), 829 South Alvarado Street, Los Angeles.	
	Ninth District—Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Siskiyou, Solano, Sonoma and Trinity Counties, Henry S. Rogers (1940), Petaluma.	Elbridge J. Best (1942), 384 Post Street, San Francisco.	
		Frederick N. Scatena (1940), Medico-Dental Building, 1127 Eleventh Street, Sacramento.	

## Standing Committees

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		Frank E. Toomey.....	San Diego 1942
		Secretary ex officio	
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O. D. Hamlin.....	Oakland 1940	Junius B. Harris (Chairman).....	Sacramento 1941
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Edwin L. Bruck.....	San Francisco 1941	J. Homer Woolsey.....	Woodland 1941
Willard H. Newman.....	San Diego 1942	Howard West.....	Los Angeles 1942
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Benjamin W. Black.....	Oakland 1940	Frederick S. Foote, Secretary of Section on General Surgery, ex officio	
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William Dock.....	San Francisco 1942	Committee on Public Relations	
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Frank R. Makinson (Chairman).....	Oakland 1941	J. Norman O'Neill.....	Chair., Com. on Hospitals, Dispensaries, Clinics
J. Marion Read.....	San Francisco 1942	Donald Cass.....	Chair., Com. on Industrial Practice
Secretary ex officio		George G. Reinle.....	Chair., Com. on Medical Defense
Editor ex officio		George D. Maner.....	Chair., Com. on Membership and Organization
Committee on Hospitals, Dispensaries and Clinics		John H. Graves.....	Chair., Com. on Medical Economics
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George Dawson.....	Napa 1941	Alson R. Kilgore.....	Chair., Cancer Commission
J. Norman O'Neill (Chairman).....	Los Angeles 1942	Dwight Wilbur.....	Chair., Com. on Postgraduate Activities
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Harry E. Zaiser.....	Orange 1940	Harry H. Wilson.....	President-elect
Morton R. Gibbons.....	San Francisco 1941	George H. Kress.....	Secretary-Treasurer
Donald Cass (Chairman).....	Los Angeles 1942	Communications for the Public Relations Department should be addressed to the Director, George H. Kress, M. D., Room 2004, 450 Sutter Street, San Francisco.	
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B. O. Raulston.....	Los Angeles 1941	Communications for the Cancer Commission should be addressed to the Secretary, Otto H. Pfeuger, M. D., Room 2004, 450 Sutter Street, San Francisco.	
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H. E. Henderson.....	Santa Barbara 1942		
Secretary ex officio			

(Roster lists of officers of scientific sections, component county societies, Woman's Auxiliary, A. M. A. delegates, special committees, etc., are continued on advertising pages 4 and 6.)





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**Industrial Hygiene.**—"The greatest opportunity today for a substantial saving of life appears to be in the field of chronic diseases, and the class offering this opportunity is the industrial population," Dr. Stanley H. Osborn, Connecticut State Commissioner of Health, declared at the second annual Conference of Governmental Industrial Hygienists which met with officers of the United States Public Health Service.

"Industrial hygiene provides a means through which all the facilities of the health department may be integrated to lessen the amount of sickness and prolong the life of a large and important section of our population," Doctor Osborn said.

In pointing out the changing problems in public health, the Connecticut health commissioner said that the amount of communicable diseases and certain nutritional diseases has been tremendously reduced and many years have been added to the life expectancy of the new-born baby. He added, however, that this saving of life has been in childhood and early adult life, and "our efforts have not produced any significant increases of life span in persons of middle life and advanced years." He, therefore, advocated that increased attention be focused on the problems of chronic diseases among working age groups.

At the conference it was also pointed out that statistics show fifteen times as many days are lost through non-industrial illnesses as from occupational diseases and industrial injuries combined. The group, therefore, went on record as favoring concerted efforts to improve all the health factors relating to the welfare of the workers instead of limiting the scope of industrial hygiene to occupational diseases and other industrial hazards.

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# ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to promptly notify "California and Western Medicine" when changes are indicated in their roster information.)

**Alameda County Medical Association**  
2404 Broadway, Oakland  
President, Frank H. Bowles, 426 Seventeenth Street, Oakland.  
Secretary, Gertrude Moore, 2404 Broadway, Oakland.  
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

**Butte County Medical Society**  
President, E. L. Meyers, Fourth Street and Broadway, Chico.  
Secretary, J. O. Chiapella, 131 Broadway, Chico.  
Meeting, *Second Thursday.*

**Contra Costa County Medical Society**  
President, Kaho Daily, 314 Tenth Street, Richmond.  
Secretary, Clifford E. Dieterich, 1306 Pomona Avenue, Crockett.  
Meeting, *Second Tuesday, 8 p. m.*

**Fresno County Medical Society**  
President, Roland W. Dahlgren, 1006 Mattei Building, Fresno.  
Secretary, Lester R. Nielson, 1006 Mattei Bldg., Fresno.  
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

**Humboldt County Medical Society**  
President, Samuel P. Burre, 507 F Street, Eureka.  
Secretary, Joseph S. Woolford, 350 E Street, Eureka.  
Meeting, *First Thursday.*

**Imperial County Medical Society**  
President, Henry B. Graeser, 115 E. Fifth Street, Holtville.  
Secretary, William A. Clarke, Holtville.  
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

**Kern County Medical Society**  
President, C. I. Mead, Haberfelde Building, Bakersfield.  
Secretary, C. S. Compton, 428 C Street, Bakersfield.  
Meeting, *Third Thursday, 8:00 p. m.*

**Kings County Medical Society**  
President, P. K. Edmunds, Corcoran.  
Secretary, William A. Johnstone, Hanford.  
Meeting, *Second Monday, 8 p. m., Legion Hall, Hanford.*

**Lassen-Plumas-Modoc County Medical Society**  
President, C. I. Burnett, Susanville.  
Secretary, Fred J. Davis, Jr., Westwood.  
Meeting, *On Call.*

**Los Angeles County Medical Association**  
1925 Wilshire Boulevard, Los Angeles  
President, William H. Daniel, 1930 Wilshire Boulevard, Los Angeles.  
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.  
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

**Marin County Medical Society**  
President, Harry N. Hensler, Home Market Building, San Anselmo.  
Secretary, Carl W. Clark, 510 B Street, San Rafael.  
Meeting, *Fourth Thursday, 7:00 p. m., Marin Golf and Country Club.*

**Mendocino-Lake County Medical Society**  
President, Robert B. Smalley, Willits.  
Secretary, Dallas Wagner, Fort Bragg.  
Meeting, *On Call.*

**Merced County Medical Society**  
President, E. M. Soderstrom, Merced.  
Secretary, Fred O. Lien, Shaffer Building, Merced.  
Meeting, *Third Thursday, Hotel Tioga, Merced.*

**Monterey County Medical Society**  
President, Walter P. Farr, 308 Main Street, Salinas.  
Secretary, Herbert Archibald, Salinas National Bank Building, Salinas.  
Meeting, *First Thursday.*

**Napa County Medical Society**  
President, Alexander H. McLeish, Veterans Home Hospital, Yountville.  
Secretary, M. M. Booth, Bruck Building, St. Helena.  
Meeting, *First Wednesday.*

**Orange County Medical Society**  
President, M. W. Hollingsworth, 1806 No. Main Street, Santa Ana.  
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.  
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital Orange.*

**Placer County Medical Society**  
President, William M. Miller, Auburn.  
Secretary, Robert A. Peers, Colfax.  
Meeting, *At Call of President.*

**Riverside County Medical Society**  
President, N. K. Bear, 3655 Fourteenth Street, Riverside.  
Secretary, Thomas A. Card, 3616 Main Street, Riverside.  
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

**Sacramento Society for Medical Improvement**  
President, Manuel Azevedo, 1027 Tenth Street, Sacramento.  
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.  
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

**San Benito County Medical Society**  
President, J. M. O'Donnell, Hollister.  
Secretary, L. E. Smith, Hollister.  
Meeting, *At Call of President.*

**San Bernardino County Medical Society**  
President, Delbert B. Williams, 1151 D Street, San Bernardino.  
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.  
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

**San Diego County Medical Society**  
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego  
President, Hall G. Holder, 1109 Medico-Dental Building, San Diego.  
Secretary, C. V. Bernardini, Medico-Dental Building, 233 A Street, San Diego.  
Meeting, *Second Tuesday, El Cortez Hotel.*

**San Francisco County Medical Society**  
2180 Washington Street, San Francisco  
President, Edwin L. Bruck, 384 Post Street, San Francisco.  
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.  
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

**San Joaquin County Medical Society**  
President, N. P. Johnson, Medico-Dental Building, Stockton.  
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.  
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

**San Luis Obispo County Medical Society**  
President, J. B. V. Butler, 722 Marsh Street, San Luis Obispo.  
Secretary, E. M. Bingham, County Health Department, San Luis Obispo.  
Meeting, *Third Saturday, 6:30 p. m., Gold Dragon Cafe, San Luis Obispo.*

(Roster lists continued on advertising page 6)

**San Mateo County Medical Society**  
President, N. D. Morrison, 205 Third Avenue, San Mateo.  
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.  
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

**Santa Barbara County Medical Society**  
President, W. H. Johnston, 1515 State Street, Santa Barbara.  
Secretary, D. H. McNamara, 317 W. Pueblo Street, Santa Barbara.  
Meeting, *Second Monday, Cottage Hospital.*

**Santa Clara County Medical Society**  
President, Cletus S. Sullivan, Bank of America Building, San Jose.  
Secretary, Leslie B. Magoon, 652 East Santa Clara Street, San Jose.  
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

**Santa Cruz County Medical Society**  
President, John T. Harrington, 10 Cooper Street, Santa Cruz.  
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.  
Meeting, *First Monday, 7:30 p. m., Club Rio del Mar, Aptos.*

**Shasta County Medical Society**  
President, B. F. Saylor, Redding.  
Secretary, Morton J. Murphy, 1542 Market Street, Redding.  
Meeting, *Second Monday.*

**Siskiyou County Medical Society**  
President, J. B. McGuire, Mt. Shasta.  
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.  
Meeting, *Sunday on call.*

**Solano County Medical Society**  
President, Ream S. Leachman, 727 Sonoma Street, Vallejo.  
Secretary, John W. Green, Box 539, Vallejo.  
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

**Sonoma County Medical Society**  
President, D. C. Oakleaf, 301A West Street, Healdsburg.  
Secretary, T. E. Albers, 600 B Street, Santa Rosa.  
Meeting, *Second Thursday.*

**Stanislaus County Medical Society**  
President, John A. Cooper, 1024 J Street, Modesto.  
Secretary, Hoyt R. Gant, 403 Beaty Building, Modesto.  
Meeting, *Second Friday, 7:30 p. m., Hotel Hughson.*

**Tehama County Medical Society**  
President, O. T. Wood, Red Bluff.  
Secretary, R. G. Frey, Red Bluff.  
Meeting, *At Call of President.*

**Tulare County Medical Society**  
President, Newton Miller, 231 No. Main Street, Porterville.  
Secretary, Ray Cronemiller, Exeter.  
Meeting, *Sunday Evening once a month.*

**Ventura County Medical Society**  
President, W. F. Mosher, 34 No. Ash Street, Ventura.  
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.  
Meeting, *Second Tuesday, Ventura County Country Club.*

**Yolo-Colusa-Glenn County Medical Society**  
President, H. G. Potter, Winters.  
Secretary, W. J. Blevins, Jr., Woodland.  
Meeting, *First Tuesday.*

**Yuba-Sutter County Medical Society**  
President, P. E. Thunen, I. O. O. F. Building, Marysville.  
Secretary, Leon M. Swift, I. O. O. F. Building, Marysville.  
Meeting, *First Tuesday.*

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For ordinary wounds the immediate administration of 1,500 units of Tetanus Antitoxin Purified Globulin, Mulford, is suggested. In wounds with severe trauma, necrotic tissue or foreign bodies present, twice the usual prophylactic dose of either Tetanus Antitoxin Purified Globulin, Mulford, or Tetanus Gas-Gangrene Antitoxin

Mixed, Mulford, should be given. A second dose may be administered within four or five days.

Tetanus Antitoxin Purified Globulin, Mulford, is supplied in syringes or vials of 1,500 and 5,000 units; in syringes of 10,000 and 20,000 units. Tetanus Gas-Gangrene Antitoxin Mixed, Mulford, is supplied in syringes or ampoule-vials containing 1,500 units Tetanus Antitoxin, 2,000 units Perfringens Antitoxin, 2,000 units Vibrio Septique Antitoxin.

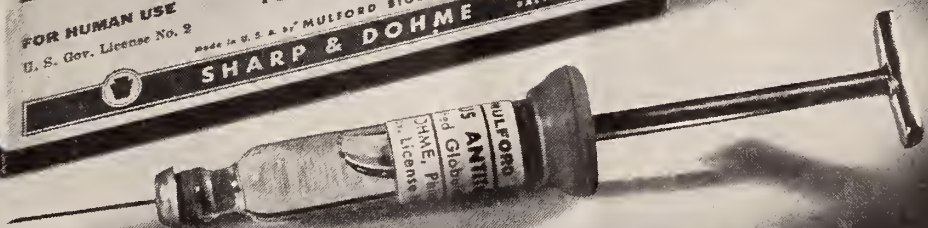
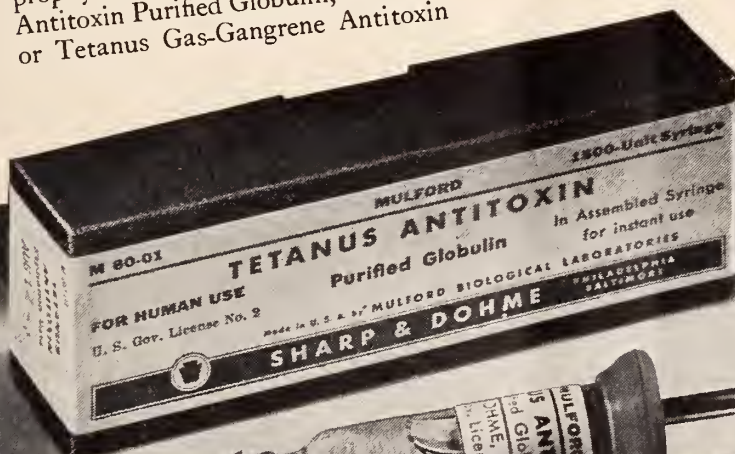


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<b>Department of Public Health of the State of California</b> San Francisco—State Office Building, McAllister and Larkin streets, Underhill 8700. Sacramento—State Office Building, Tenth and L streets, Capital 2800. Los Angeles—State Office Building, 217 West First Street, MADison 1281.		<b>The Public Health League of California</b> Executive Secretary, Ben H. Read, San Francisco office, 244 Kearny Street, phone SUtter 8470. Los Angeles office, Room 563, 1151 South Broadway, phone PRespect 5711.

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## SILVER PICRATE

*Wyeth*



### IN THE OFFICE TREATMENT FOR TRICHOMONAS VAGINITIS

Two insufflations of Wyeth's Compound Silver Picrate Powder and the supplementary use of twelve Silver Picrate Vaginal Suppositories usually result in complete remission of symptoms of trichomonas vaginitis and the disappearance of trichomonads from the smear.

**CONVENIENT • SIMPLE • EFFECTIVE**

*Complete information on request*



**JOHN WYETH & BROTHER, INC. • PHILADELPHIA, PA. : : WALKERVILLE, ONT.**

**Dental Caries.**—Except for the common cold, dental caries is the most prevalent of diseases: nineteen out of twenty people at the age of fifteen years have or have had them.

Dental caries is the medical term for decayed teeth. The figures are from a recent United States Public Health Service survey of a typical town not far from Washington, D. C., and appear in a pamphlet, "Good Teeth," by Doctors F. C. Cady, Dental Surgeon, and J. W. Knutson, Passed Assistant Dental Surgeon, published recently.

These are the findings for school children. Perhaps among grown-ups, says the pamphlet, more than nineteen out of twenty persons have had one or more decayed or filled teeth. The dental surgeons inquire:

"That is a figure which makes one pause and ask, 'Why do teeth decay? How can one prevent their decay?'"

"Science cannot yet answer why. There is no magical formula which one can use to prevent decay. For the present at least the best that can be done is to feed the expectant mother, the infant and the child tooth building foods and to visit the dentist early and often for the control of the extension of dental decay."

In addition to information and advice to parents regarding the growth and care of children's teeth, the pamphlet contains a section devoted to general dental prophylaxis.

"If a person ate only raw, hard foods," it advises, "the scouring action of these foods would automatically keep the teeth and mouth clean and massage the gums. The teeth of most animals are kept clean and the gums healthy in this manner. The modern human being needs to brush the teeth daily to remove accumulations of soft and sticky foods. It may not prevent decay, just as bathing may not prevent disease, but both are clearly habits which may reduce disease."

"Tooth pastes and powders are a good mechanical aid in the cleaning of the teeth. In choosing your dentifrice

be sure it is not so abrasive that it will scratch the delicate enamel.

"No safe dentifrice, however, will change the color of the teeth, either in one operation or over a period of time. No dentifrice will change the chemistry of the mouth from acid to alkali or vice versa. No dentifrice will cure bad breath, pyorrhea, or any other disease. No dentifrice will prevent dental decay. Tooth "bleaches" are not safe to use.

"The Council on Dental Therapeutics of the American Dental Association has passed upon many commercially sold dentifrices. It accepts those which are harmless and which are honestly advertised. One may choose from its list both powders and pastes. Dentifrices which the Council accepts carry its seal of approval on their containers.

"From what has been said, it is apparent that the best tooth insurance is for the child and the adult to visit a competent dentist periodically, at least twice a year, for a thorough examination and necessary treatment. In this manner, diseased conditions of the mouth and teeth can usually be discovered, treated and controlled in their early stages. There are no drugs which are safe and effective against such diseases. If neglected, tooth diseases will progress to a stage where permanent damage will result."

Man's intellectual and spiritual destiny is in no small degree determined by what and how he reads. As reading is a mark of civilized peoples, so it is of individuals who grow and progress. Its importance, which arose with the art of writing, mounted rapidly after the invention of printing, and reached its present climax through the wide diffusion of books.—Leon J. Richardson.

Half the spiritual difficulties that men and women suffer arise from a morbid state of health.—H. W. Beecher.



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THE JOURNAL of the California State Medical Association and the Coöperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital, or we will refer your request to the proper department of the A. M. A. for reply.

We invite and urge you to use this Service. It is absolutely free to every member of the California Medical Association. The Coöperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in CALIFORNIA AND WESTERN MEDICINE, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This A. M. A. Service Bureau will give you the information. Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to write direct to the Coöperative Medical Advertising Bureau, 535 N. Dearborn Street, Chicago, Illinois. CALIFORNIA AND WESTERN MEDICINE and the A. M. A. Service Bureau desire to serve you.

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MEDICAL SCHOOL AND HOSPITAL (Organized 1881)

(The Pioneer Post-Graduate Medical Institution in America)

## For the General Surgeon

A combined surgical course comprising General Surgery, Traumatic Surgery, Abdominal Surgery, Gastro-Enterology, Proctology, Gynecological Surgery, Urological Surgery, Thoracic Surgery, Pathology, Roentgenology, Physical Therapy, Operative Surgery and Operative Gynecology on the Cadaver.

## Proctology, Gastro-Enterology and ALLIED SUBJECTS

FOR INFORMATION ADDRESS: MEDICAL EXECUTIVE OFFICER • 345 West 50th Street, New York City

**Syphilis.**—"More than a million American women of child-bearing age have contracted syphilis," the United States Public Health Service declared in a folder, "You Can End This Sorrow," recently issued.

In pointing out that 60,000 syphilitic babies are born every year, the Federal health authorities emphasize the tragic but needless consequences of neglecting to give syphilis tests and treatments to prospective mothers.

Five times out of six, mothers with untreated syphilis bear dead or diseased babies, according to the statement issued by the Public Health Service's Division of Venereal Diseases, which is headed by Assistant Surgeon-General R. A. Vonderlehr. Ten out of eleven of these tragedies—deaths, abortions, stillbirths, and congenital syphilis—need not have happened. Modern medical treatment given to the mother during pregnancy will insure the birth of a healthy, living baby in practically every instance.

Seven important facts for every woman are listed in the folder recently issued:

1. Insist upon a complete physical examination before marriage for both the husband and wife, including a blood test for syphilis. Syphilis wrecks marriage.

2. Go to the doctor at the first sign of pregnancy. It does no harm to see a doctor after you have missed a period even though you should not be pregnant. The sooner you are in the doctor's care the more he can help you.

3. During each pregnancy insist upon a blood test for syphilis as early in pregnancy as possible. The test should be repeated at the seventh month.

4. Start treatment immediately upon detection of a syphilitic infection. Treatment must be continued without interruption until the birth of the child.

5. Careful periodic examinations and supervision of the infant after birth are necessary to guard against possible late symptoms of congenital syphilis.

6. Treatment for the mother must continue after the pregnancy period to insure permanent cure.

7. Syphilis can be cured only by competent treatment. Consult a good physician. Avoid self-treatment and the quack doctor.

"You Can End This Sorrow" is the third in a series of venereal disease folders published by the Government's Public Health Service. More than 800,000 copies of Folder Number One, "Syphilis—Its Cause, Its Spread, Its Cure," have been printed since it was issued in the spring of 1938. Folder Number Two, "Syphilis and Your Town," has sold 100,000 copies since it went on sale in February, 1939. All three publications are available through the Superintendent of Documents at one dollar per hundred copies.

Senility is not an important cause of death in California. There were but 149 deaths due to this cause in 1937, and 161 deaths in 1936.

## CHILDREN'S HOSPITAL

4614 Sunset Boulevard  
LOS ANGELES, CALIFORNIA

Physical Therapy Course. 18 months. Tuition, \$150.00. Given for graduates of accredited Schools of Nursing and Physical Education. Course opens September, 1939.

*For benefit of physicians, institutions, and therapists, the School maintains Bureau for placement of therapists fulfilling the requirements of American Medical Association.*

Apply: Miss Lily Graham

Director . . . . . School of Physical Therapy

## Cook County Graduate School of Medicine

(IN AFFILIATION WITH COOK COUNTY HOSPITAL)

Incorporated not for profit

### Announces Continuous Courses

**MEDICINE**—Two Weeks Course, Gastroenterology, September 25. Two Weeks Personal Course, Electrocardiography, August 7. Special Courses in August. Two Weeks Course October 9.

**SURGERY**—General Courses One, Two, Three and Six Months; Two Weeks Intensive Course in Surgical Technique with practice on living tissue; Clinical Courses; Special Courses. Courses start every two weeks.

**GYNECOLOGY**—Four Weeks Personal Course August 28. Two Weeks Course October 9.

**OBSTETRICS**—Two Weeks Intensive Course October 23. Informal Course every week.

**FRACTURES AND TRAUMATIC SURGERY**—Ten Day Formal Course September 25. Informal Course every week.

**OTOLARYNGOLOGY**—Two Weeks Intensive Course starting September 11. Informal Course every week.

**OPHTHALMOLOGY**—Two Weeks Intensive Course starting September 25. Informal Course every week.

**CYSTOSCOPY**—Ten Day Practical Course rotary every two weeks. Urology Courses every two weeks.

**ROENTGENOLOGY**—Special Courses X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy starting every week.

*General, Intensive and Special Courses in all branches of Medicine, Surgery and the Specialties every week.*

### TEACHING FACULTY — ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore Street, Chicago, Ill.



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The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

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<b>ALUM ROCK SANATORIUM</b> For Treatment of Diseases of the Chest San Jose, California	<b>FRANKLIN HOSPITAL</b> Limited General Hospital Fourteenth and Noe Streets, San Francisco	<b>PARK SANITARIUM</b> Mental and Nervous Alcoholic and Drug Addictions 1500 Page Street, San Francisco, California
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<b>COLFAX SCHOOL FOR THE TUBERCULOUS</b> For the Treatment of Tuberculosis Colfax, California	<b>LIVERMORE SANITARIUM</b> Nervous and General Diseases Livermore, California	<b>TWIN PINES</b> Convalescent and Neuropsychiatric Belmont, California
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BELMONT

**Twin Pines**

CALIFORNIA

**Fatigue states, neuroses, and selected mental cases.**

ALLEN WILLIAMS, M. D.  
*Internal Medicine*

Telephone BELMONT 111

WILL REBEC, M. D.  
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**RICHARDSON MINERAL SPRINGS***(Near Chico, Butte County, California)*

Fireproof hotel, comfortable cottages at rates from \$30 per week up including medical advice, meals, steam and mineral baths.

RHEUMATISM, ARTHRITIS, KIDNEY AND BLADDER DISORDERS

Hydrotherapy Combined With a Warm Dry Climate

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*For particulars write***LEE RICHARDSON . . . RICHARDSON SPRINGS, CALIFORNIA**

**Fungous Infection Effectively Treated by Sulfanilamide.**—Sulfanilamide has proved effective in the treatment of a case of fungous infection characterized by lumpy tumors, Edwin M. Miller, M.D., and Egbert H. Fell, M.D., Chicago, report in *The Journal of the American Medical Association* for February 25.

Actinomycosis, also called lumpy jaw, big jaw, dams, clyers or wooden tongue, is a chronic infectious disease of cattle, sometimes transmitted to man.

In the case reported by Doctors Miller and Fell the disease developed in the lower part of the abdomen of a boy eleven years old. Other drugs were used for three months without any benefit. Within a week after treatment with sulfanilamide was started, improvement in the abscessed mass and in the condition of the boy was apparent.

When the patient was last seen by the authors they say that "he was certainly the picture of robust health and showed no ill effects from the continuous taking of sulfanilamide for about ten months."

**Bubonic Tularemia of Groin Traced to Tick Bite in Two Cases.**—Reporting two cases in which bubonic tularemia of the groin was transmitted by tick bite, Joseph G. Pasternack, M. D., New Orleans, in *The Journal of the American Medical Association* for May 6, points out that when this source of transmission is overlooked the disease may readily be confused with other types of bubo (inflamed swelling).

While only six similar cases have previously been reported, he advises that "a bubo in the groin or swollen glands anywhere when associated with fever, an ulcer of the skin or scratches resulting from insect bites and coupled with a history of tick bite or fly bite should suggest tularemia."

Bubonic tularemia of the groin is clinically similar to other types of buboes of the groin. The pus-discharging tularemia buboes will rarely yield the organism responsible for tularemia, *Bacterium tularensis*, on culture or produce lesions in guinea pigs.





Wherever doctors meet you may hear comments such as these. More than five hundred Pandexes now in daily use have built their reputation on the firm foundation of dependable performance, at a price far below that of any diagnostic x-ray unit of anywhere near the same quality. Details? In bulletin No. 373.

**WESTINGHOUSE X-RAY CO. INC.**

LONG ISLAND CITY • NEW YORK

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Rates for these insertions are \$4 for fifty words or less; additional words 5 cents each.

**COACHING FOR STATE BOARDS—MEDICAL AND**  
Dental. Arthur H. White, M. D., Suite 1005, Flood Building,  
San Francisco.

**EXCEPTIONAL OPPORTUNITY FOR PHYSICIAN. WILL**  
sell at a very low price and on easy terms, if necessary, practice,  
library, drugs, surgical instruments and complete office equipment  
of prominent physician, deceased. Also pretentious twelve-room  
home and beautiful grounds, located in prosperous community in  
northern California. Write for complete details to Mrs. Frances M.  
Kappler, Etna, California.

**SUBURBAN PRACTICE FOR SALE CLOSE TO LOS AN-**  
geles—office equipped and home complete. No real estate for sale.  
Rent less than \$25 per month. Income averages better than \$500  
per month. Inquire Mr. Frantz, 522 Sutter Street, San Francisco,  
California. Phone GARfield 3989.

**PHYSICIAN PLANNING RETIREMENT OFFERS FOR**  
sale his office equipment, consisting of x-ray equipment: Kelley-  
Koett apparatus (two years); G. E. Couldge Tube—2 foci; Fluoro-  
scopic and treatment tubes; accessories. Laboratory equipment:  
microscopes; micratome; centrifuges; glassware; chemicals; stains.  
BMR apparatus (McKesson). Floor and window coverings. Room  
2542, 450 Sutter Street. Phone GARfield 0103.

**Caution Imperative in Use of Automobile Grease**  
“Gun.”—The small opening in the needle of the modern  
lubrication “gun,” used in automobile service stations,  
should be handled with all the precautions applicable to the  
muzzle of a loaded rifle. Dr. F. Hilton Smith, Salinas,  
California, warns in *The Journal of the American Medical*  
*Association* for March 11.

An automobile mechanic lost his index finger by ampu-  
tation because gangrene set in after grease under 7,000  
pounds of pressure had been accidentally forced into the tip  
of the finger. Grease was found in his hand as far up as  
the wrist, forced there by the terrific pressure of the lubri-  
cation “gun.”

A previous case of injury as the result of high pressures  
used in modern industry was reported in 1937. This oc-  
curred at San Diego, California, where a mechanic's right  
middle finger had to be amputated following accidental in-  
jection of oil from the jet of a Diesel engine.

“The lubricants in use in many stations in which auto-  
mobiles are serviced are forced into grease fittings under  
pressures ranging from 500 to 7,000 pounds,” Doctor Smith  
points out. “This is a far cry from the familiar grease cup  
of a decade ago. Few modern grease racks depend entirely  
on the hand type of gun to force lubricants into spring  
shackles, universal joints or other parts of the car provided  
with fittings. The efficiency of the lubrication depends on  
satisfactory filling of bearing spaces, and to expedite the  
work tremendous pressures are employed.

“The air pressure going from the compressor to the  
lubricants is increased as much as forty times, and a thin  
stream of grease is forced through a hollow needle-like  
ejector into the fitting. Thus, a pressure of 150 pounds in  
the tank (which is the amount usually employed) will pro-  
vide a pressure of 6,000 pounds at the outlet. Grease issuing  
from the orifice of such a device is capable of causing con-  
siderable damage, easily penetrating human tissue.

“Familiarity of operators with the old style systems has  
given them a feeling of safety which does not apply to  
newer, higher pressure lubricating machines.”

Describing the injury in the case he reports, Doctor  
Smith says that he saw the patient almost immediately  
after the accident, but despite the fact that a wide incision  
was made before the onset of any considerable swelling,  
moist gangrene of the finger developed on the fourth day.

On the ninth day, when the amputation was performed,  
the palm area was probed and an ounce of grease was  
milked down from this space, an additional half ounce  
being found in the tissues of the wrist. Two months after  
the accident the patient was able to resume work, although  
there was still transient swelling of the hand when he per-  
formed hard labor.

In the event of accidents of this type, Doctor Smith  
advises early and extensive incision or opening. It should  
be borne in mind, he says, that, even without swelling, im-  
mediate and wide opening of the tissues is necessary for  
drainage of the foreign material.

The only way for a rich man to be healthy is by exercise  
and abstinence, to live as if he were poor.—Sir W. Temple.

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## BOOKS RECEIVED

**Textbook of General Surgery.** By Warren H. Cole, M. D., F. A. C. S., Professor of Surgery, University of Illinois College of Medicine; Formerly Associate Professor of Surgery, Washington University School of Medicine, Saint Louis, and Robert Elman, M. D., Associate Professor of Surgery, Washington University School of Medicine, Saint Louis. Second Edition. Cloth. Pp. 1031, illustrated. New York: D. Appleton-Century Company, Incorporated, 1939.

**The Endocrine Glands.** By Max A. Goldzieher, M. D., Endocrinologist, Gouverneur Hospital and Brooklyn Women's Hospital, New York; Former Professor of Pathology, Royal Hungarian University, Budapest. Cloth. Pp. 916, illustrated with two hundred seventy-one figures. Price, \$10. New York: D. Appleton-Century Company, Incorporated, 1939.

**Textbook of Pathology.** A Correlation of Clinical Observations and Pathological Findings. By Charles W. Duval, M. D., Professor of Pathology and Bacteriology, Tulane University School of Medicine; Chief Visiting Pathologist, Charity Hospital, New Orleans; Consultant in Pathology, Touro Infirmary, New Orleans, and Herbert J. Schattenberg, M. D., Associate Professor of Pathology and Bacteriology, Tulane University School of Medicine; Visiting Pathologist, Charity Hospital, New Orleans. Cloth. Pp. 681, illustrated. Price, \$8.50. New York: D. Appleton-Century Company, Incorporated, 1939.

**The Patient as a Person.** A Study of the Social Aspects of Illness. By G. Canby Robinson, M. D., LL. D., Sc. D., Lecturer in Medicine, Johns Hopkins University. Cloth. Pp. 423. Price, \$3. New York: The Commonwealth Fund, 1939.

**Clinical Pathological Gynecology.** By J. Thornwell Witherspoon, B. S. (Princeton); B. A. and M. A. (Oxon); M. D. (Johns Hopkins); Formerly Associate Professor of Experimental and Pathological Gynecology, Indiana University Medical Center, Indianapolis. Cloth. Pp. 400, illustrated with 271 engravings. Price, \$6.50. Philadelphia: Lea & Febiger, 1939.

**Heart Patients.** Their Study and Care. By S. Calvin Smith, M. D., Sc. D., Formerly Special Heart Examiner for the Surgeon-General's Office during the World War at Home and Abroad; Author of "Heart Affections; Their Recognition and Treatment," etc. Cloth. Pp. 166. Price, \$2. Philadelphia: Lea & Febiger, 1939.

**The New International Clinics.** Original Contributions; Clinics; and Evaluated Reviews of Current Advances in the Medical Arts. Edited by George Morris Piersol, M. D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Volume II, New Series Two. Cloth. Pp. 321. Philadelphia: J. B. Lippincott Company, 1939.

**Diseases of the Nose and Throat.** By Charles J. Imperatori, M. D., F. A. C. S., Professor of Otolaryngology, New York Polyclinic Medical School and Hospital; Formerly Professor of Clinical Otolaryngology, New York Postgraduate Medical School, Columbia University, New York; Consulting Laryngologist to Nyack General Hospital and Harlem Hospital, New York; Consulting Bronchoscopist to Manhattan Eye, Ear, and Throat Hospital, Fifth Avenue and Flower Hospital and Riker's Island Hospital, New York, and Herman J. Burman, M. D., F. A. C. S., Adjunct Professor of Otolaryngology, New York Polyclinic Medical School and Hospital; Formerly Assistant Professor of Clinical Otolaryngology, New York Postgraduate Medical School, Columbia University, New York; Director of the Department of Otolaryngology, Harlem Hospital, New York; Consulting Bronchoscopist to Broad Street Hospital and Pan-American Clinics, New York. Second Edition, Revised. Cloth. Pp. 726, with 480 illustrations. Philadelphia: J. B. Lippincott Company, 1939.

(Continued on Page 15)



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**Smith:** Heart Patients, Their Study and Care . . . 2.00  
**Walker:** Introduction to Dermatology (10th Ed.) . . . . . 7.00

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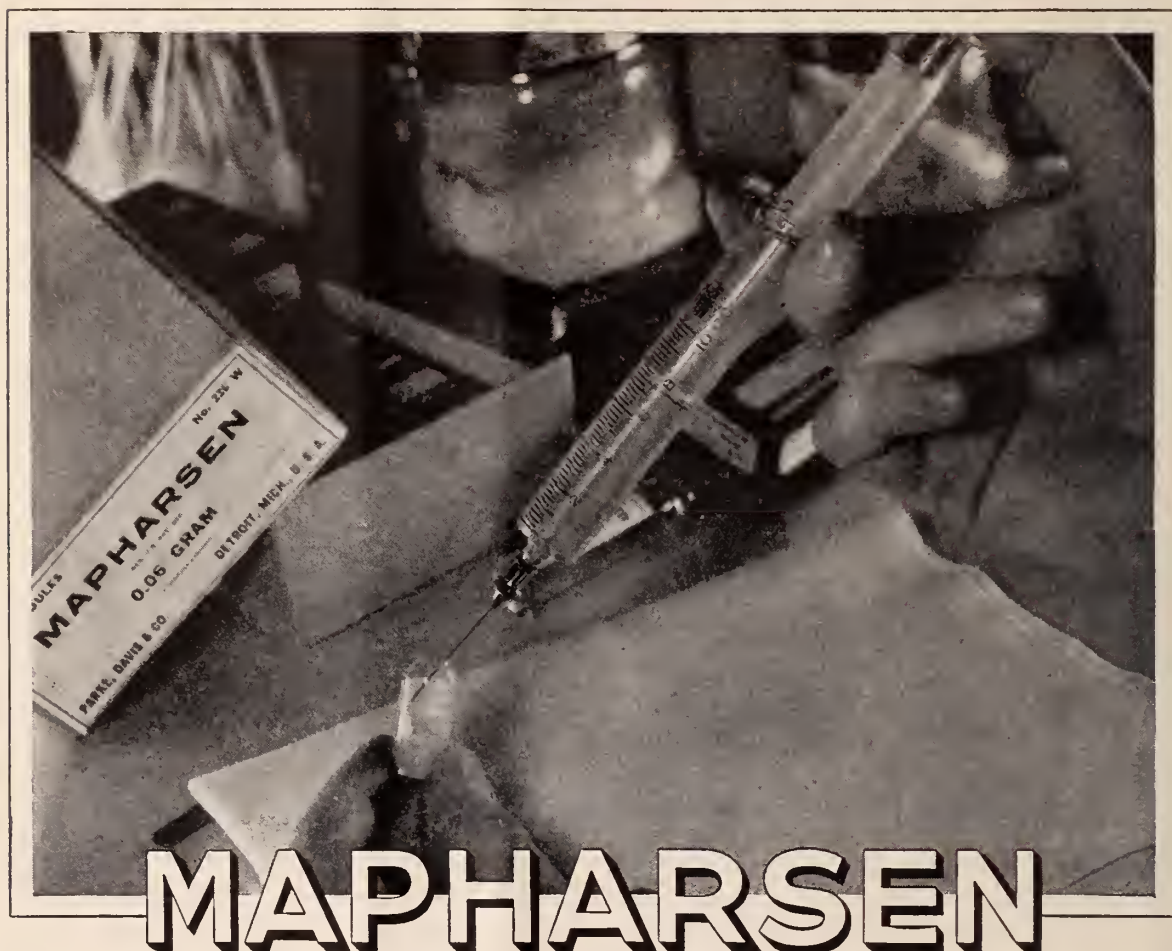
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 MEDICAL DIRECTORS, PASADENA, CALIFORNIA

### BOOKS RECEIVED

(Continued from Page 13)

**What It Means to Be a Doctor.** By Dwight Anderson. Cloth. Pp. 87. Price, \$1. Public Relations Bureau, Medical Society of the State of New York, 2 East 103rd Street, New York, 1939.

**The Clinical and Experimental Use of Sulfanilamide, Sulfapyridine and Allied Compounds.** By Perrin H. Long, M. D., Associate Professor of Medicine, The School of Medicine, the Johns Hopkins University; Associate Physician, the Johns Hopkins Hospital; Lecturer in Epidemiology, the School of Hygiene and Public Health, the Johns Hopkins University, and Eleanor A. Bliss, Sc. D., Fellow in Medicine, the School of Medicine, the Johns Hopkins University. Cloth. Pp. 319. Price, \$3.50. New York: The Macmillan Company, 1939.

**Life and Letters of Dr. William Beaumont.** By Jesse S. Myer, A. B., M. D., Late Associate in Medicine in Washington University, St. Louis. With an Introduction by Sir William Osler, B.T., M. D., F. R. S., Late Regius Professor of Medicine in Oxford University, England. Cloth. Pp. 327. Price, \$5. St. Louis: The C. V. Mosby Company, 1939.

**Health Officers' Manual.** By J. C. Geiger, M. D., Dr. P. H., Sc. D., LL. D., Director, Department of Public Health, City and County of San Francisco, California. 148 pages, illustrated. Cloth. Price, \$1.50 net. Philadelphia and London: W. B. Saunders Company, 1939.

**Cancer Handbook of the Tumor Clinic, Stanford University School of Medicine.** Edited by Eric Liljencrantz, M. D., Chief of Tumor Clinic, Stanford University School of Medicine; Consultant in Neoplastic Disease, United States Naval Hospital, Mare Island, and United States Marine Hospital, San Francisco. Cloth. Pp. 114. Price, \$3. Stanford University: Stanford University Press, 1939.

**The Genuine Works of Hippocrates.** Translated from the Greek by Francis Adams, LL. D., Surgeon. With an Introduction by Emerson Crosby Kelly, M. D. Cloth. Pp. 384. Price, \$3. Baltimore: The Williams & Wilkins Company, 1939.

**Cancer of the Breast and Cancer of the Uterus.** By Marion Ellsworth Anderson, A. B., M. D. Second Edition. Paper. Pp. 106, illustrated. Clinton, Iowa: The Franklin Press, 1939.

**Syphilis and Its Accomplices in Mischief: Society, the State, and the Physician.** By George M. Katsainos, M. D. Paper. Pp. 554. Price, \$5. Privately printed at Athens, Greece, 1939.

**Three Cases of Blood in Urine Due to Sulfapyridine Reported.**—Three cases of blood in the urine due to the administration of sulfapyridine are reported by Hamilton Southworth, M. D., and Crispin Cooke, M. D., New York, in *The Journal of the American Medical Association* for May 6.

They state that the "label on the packages of this drug as recently released for distribution by at least two pharmaceutical concerns contains a warning about this possible toxic effect. But the possible occurrence of acute abdominal pain in the form of kidney and ureteral colic and the development of definite nitrogen retention in association with the hematuria are not mentioned.

"In view of the recent release of sulfapyridine for general use it seemed to us important that three cases showing these complications should be briefly reported even though the mechanism underlying their development has not been definitely determined."

All three patients were under treatment and the complications cleared promptly when sulfapyridine was stopped and fluids were forced.

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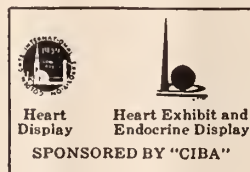
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### Literature Upon Request

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\*\*Huffman, J. W., Amer. J. Surgery, Nov. 1935.  
Zener, F. B., Northwest Medicine, Jan. 1937.



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### PRENATAL EXAMINATIONS

(Continued from Text Page 71)

Sec. 6. If any section, subsection, sentence, clause or phrase of this act is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions thereof. The Legislature hereby declares that it would have passed this act, and each and every section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more other sections, subsections, sentences, clauses or phrases be declared unconstitutional.

### PREMARITAL EXAMINATIONS

the laboratory doing such test together with the certificate form to the certifying physician. The duplicate reports shall be forwarded at weekly intervals to the California State Department of Public Health. The triplicate shall be retained by the laboratory for file and shall be open at any time for inspection by any authorized representative of the California State Department of Public Health.

79.06. The judge of the superior court in the county in which the license is to be issued is hereby authorized and empowered, on joint application by both parties to a marriage, to waive the requirements as to medical examinations, laboratory tests, and certificates and to order the licensing authority to issue the license applied for, if all other requirements of the marriage laws have been complied with, and if the judge is satisfied by affidavit or other proof that an emergency or other sufficient cause for such action exists and that the public health and welfare will not be injuriously affected thereby.

(Continued on Page 18)



# How are Infants Weaned Safely to *Artificial* Feeding?

INFANT  
FEEDING  
PRACTICE  
POINTERS

## *Answers to Physicians' Questions*

1. Q. What is the first formula for weaning?

A. *Milk, whole, 6 ozs. Boiled water, 2 ozs. Karo Syrup, 2 teaspoons for each bottle.*

2. Q. How is weaning done gradually?

A. *One bottle replaces a nursing at 6:00 P. M. the first week; two bottles at 2:00 and 6:00 P.M. the second week; three bottles at 10:00 A.M., 2:00 and 6:00 P.M. for the third week, etc.*

3. Q. What is the total formula for twenty-four hours for weaning?

A. *Milk, whole, 24 ozs. Boiled water, 8 ozs. Karo Syrup, 3 tablespoons. Four feedings, eight ozs. every four hours.*

Infants should be weaned from the breast at about eight months. The season of the year is immaterial with modern knowledge of nutrition and hygiene. Gradual weaning is accomplished by progressively increasing the number of bottle feedings in substitution for the breast feedings.

Whatever milk is suited to the individual infant, Karo makes an ideal modifier. It has a high concentration of dextrin and smaller amounts of maltose, dextrose and cane sugar. Karo is non-allergic, not readily fermentable, well tolerated, readily digested and effectively utilized.

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### PREMARITAL EXAMINATIONS

(Continued from Page 16)

In any case where such examinations and tests have been made and certificate or certificates have been refused because one or both of the applicants have been found to be infected with syphilis, the judge shall, nevertheless, be authorized and empowered, on application of both parties to such marriage to order the licensing authority to issue the license, if all other requirements of the marriage laws have been complied with and if the judge is satisfied by affidavit or other proof that an emergency or other sufficient cause for such order exists and that the public health and welfare will not be injuriously affected thereby. In every such case, however, the clerk of the court shall transmit to the California State Department of Public Health a transcript of the record and the order thereon for such follow-

up by said department as is required by law or deemed necessary by said department for the protection of the public health. The order of the court shall be filed by the licensing authority in lieu of the certificate form.

The court, when it is deemed necessary, may, to the extent authorized by law or rules of court, order all proceedings instituted under the provisions of this article to be confidential and private. There shall be no fee for these court proceedings.

79.07. The certificate forms and the court orders shall be filed in the office of the county clerk.

79.08. Any applicant for a marriage license, physician, or representative of a laboratory who shall misrepresent his identity or any of the facts called for by the certificate form prescribed by this article; or any licensing officer who shall issue a marriage license without having received the certificate form or an order from the court, or who shall have reason to believe that any of the facts on the certificate form have been misrepresented, and shall, nevertheless, issue a marriage license; or any person who shall otherwise fail to comply with the provisions of this article shall be guilty of a misdemeanor.

79.09. Certificates, laboratory statements or reports, applications, and court orders, in this article referred to and the information therein contained, shall be confidential and shall not be divulged to or open to inspection by any

person other than State or local health officers or their duly authorized representatives.

Any person who shall divulge such information or open to inspection such certificates, statements, reports, applications or court orders, without authority, to any person not by law entitled to the same shall be guilty of a misdemeanor.

Sec. 2. The sum of twenty thousand dollars is hereby appropriated out of any money in the State treasury not otherwise appropriated, to be expended by the California State Department of Public Health for printing, necessary expenses relative to checking and approval of laboratories, clerical and technical assistance involved in administration of the article and any other expenditures necessary for carrying out the provisions and purposes of this article during the ninety-first and ninety-second fiscal years. All

(Continued on Page 20)



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3. Does not coat intestinal mucosa. Petrolagar is an aqueous suspension of mineral oil — oil in water emulsion.
4. Will not coat the feces with oily film.
5. Does not interfere with secretion or absorption.
6. Augments intestinal contents by supplying an unabsorbable fluid.
7. More even distribution and dissemination of oil with gastro-intestinal contents.
8. Assures a more normal fecal consistency.
9. Less likely to leak.
10. Provides comfortable bowel action.
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## PREMARITAL EXAMINATIONS

(Continued from Page 18)

claims against this appropriation shall be submitted for approval and audit to the California State Department of Public Health, and shall be paid in accordance with law.

Sec. 3. If any section, subsection, sentence, clause or phrase of this article is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions thereof. The Legislature hereby declares that it would have passed this article, and each and every section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more other sections, subsections, sentences, clauses or phrases, be declared unconstitutional.

## TWENTY-FIVE YEARS AGO

(Continued from Text Page 72)

sented for the consideration of the members, various arguments pro and con relating to the plan of dealing with industrial accident insurance adopted by the State Society. The first portion merely quotes the report of the Council dealing with this subject, which report appeared in the June issue of the Journal:

"The following are the arguments for and against the endorsement of the State Society's resolution, as drawn up by your Secretary to the best of his ability, after a careful consideration of all the evidence submitted at the various meetings and from written objections submitted by members, some of the latter being quoted verbatim as indicated:

### I. For

1. It must be remembered that the Boynton Workmen's Compensation, Insurance and Safety Act became effective January 1, 1914. It is a law creating a condition which must be met.

2. The Industrial Accident Commission takes the stand that fees should be commensurate with the income of the individual and that charges should be made to the injured workman as if he had to pay the bill.

3. Doctors receive 100 per cent of their fees.

4. The fees average greater than do the usual collections for this sort of work.

5. By the work of the State Society, the Industrial Accident Commission and the various insurance companies recognize the rights of an organized medical profession in marked contrast to the nonrecognition in other states and in Europe.

6. County medical societies will have the right to present a list of physicians who desire or are willing to do this work.

7. With the united profession, it will no doubt be possible for amendments to this Act to be introduced at the proper time.

### II. Against

1. Lowering of fees by the Fee Bill.

2. Men who insist upon higher fees will not be employed.

3. Concentration of work in the hands of a few men.

4. Low fees for men coming under the Act, but who have larger incomes than the average.

5. The insurance companies should furnish malpractice insurance to the men doing the work and this should not be a burden on the State Society.

6. The county society naming men would lead to favoritism and disrupt the Society.

7. The only way to avoid the haggling about fees and to insure the employment of better men would be to substitute a hospital system, with a salaried staff, so that the interests of the hospital, patient, Industrial Commission and insurance companies are one, or to use the already established hospitals for this purpose, with State regulation or supervision.

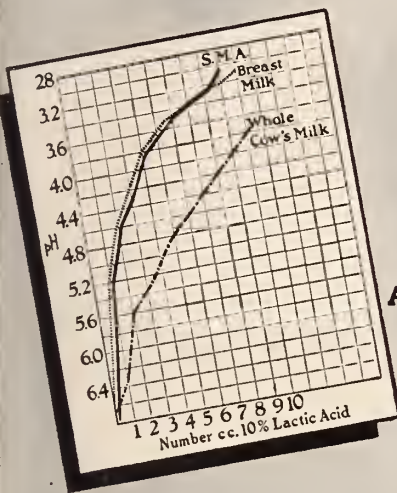
(Continued on Page 22)



# Why

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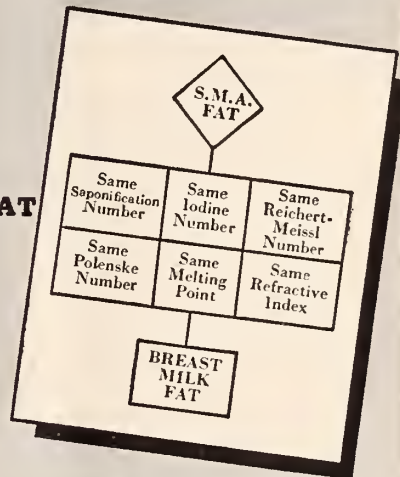
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COMPARATIVE ANALYSIS OF S.M.A. AND BREAST MILK		
Chemical and Physical Analysis	S. M. A.	Breast Milk
FAT.....	3.5-3.6%	3.59
PROTEIN.....	1.3-1.4%	1.23-1.5
CARBOHYDRATE.....	7.3-7.5%	7.57
ASH.....	0.25-0.30%	0.215-0.226
pH.....	6.8-7.0	6.97
Δ.....	0.56-0.61	0.56
ELECTRICAL CONDUCTIVITY.....	0.0022-0.0024	0.0023
SPECIFIC GRAVITY.....	1.032	1.032
CALORIC VALUES: —PER 100 C. C. . .	68.0	68.0
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Lillian F. Johnson, R.N.

### TWENTY-FIVE YEARS AGO

(Continued from Page 20)

8. That under the Act the employer has the right to dictate choice of physicians and that the free choice of physicians promised is a delusion and a snare.

9. This state is being "made an experiment station for freak legislation."

10. Free choice of physicians does not guarantee to the patient the services of surgeons most competent in this work.

11. County societies have not the legal right to establish fees that will bind all their members.

In reply to the above objections:

I. For

1, 2, and 3 are obvious.

4 is conceded by almost every doctor.

5, 6, and 7 are essential. . . .

In Memoriam—George Frederick Reinhardt, M.D.—It is sad enough to see anyone in the prime of life pass away, but when this happens in the case of a man of unusual and marked constructive ability, one who is adding to the development of good things and to the betterment of con-

ditions affecting the whole people, it is indeed a calamity. It was work of this sort that was being done by Doctor Reinhardt in the University of California at Berkeley, and his untimely death on the night of June 7 will be felt as a distinct loss to the University for many a long day to come. His work in the creation and development of the students' infirmary marked him as a man above most men, and the thing that he created was seen to be good and has been followed in many universities. He was ill but four days and died from a profound infection consequent upon a carbuncle, in spite of every effort to save his life. He was forty-five years old and, while he had been born in Iowa, nearly all of his life had been spent in California, which he dearly loved. A man of rare commonsense and sound judgment and with a kindly heart and a sympathetic disposition that endeared him to all those with whom he came in contact, his loss will not soon be forgotten. He leaves a widow and two children. . . .

From an Original Article on "Fundamentals in Teaching Sex Hygiene," by John C. Hollister, M.D., Pasadena.—Many references to teaching sex hygiene are to be found through recent literature. Books have been published, committee reports and personal articles have appeared in medical and pedagogical journals and in popular magazines.

(Continued on Page 24)

# CAMP

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## TWENTY-FIVE YEARS AGO

(Continued from Page 22)

The need for such instruction is now so widely recognized that the question before us is not whether it should be done, but what is the best way to do it. . . .

In conclusion of the paper, therefore, I feel justified in saying:

1. The fundamentals of the whole subject of the science of sex are human anatomy and physiology.
2. Direct and early teaching of human anatomy and physiology to the child is feasible and definitely advantageous, carries with it no valid objections, and is therefore highly desirable.
3. The plan suggested in this paper has a firm psychological basis, and rests upon good pedagogy.
4. Any method of teaching sex hygiene to children and youth that recommends the facts of human reproduction to be taught indirectly is not only defective, but it directly opposes the formation of the best sex habits, lessens the child's ability to control his sex impulses, and, finally, adds to his chances for some later perversion. . . .

From an Original Article on "Treatment of General Paralysis of the Insane," by C. W. Mack, M. D., Agnews State Hospital, Agnews.—Psychiatrists have long looked upon general paralysis of the insane as incurable. When supplied with such facts as the duration and character of the onset in a given case, they could almost predict the time of fatal termination. In the hospitals for the insane these patients rapidly pass from the receiving service to the infirm wards, where they go through the stage of slow dissolution as paralysis ensues and the mind loses all but a faint trace of former activity. To see a person in the prime of life suddenly stricken with this disease should call forth our best endeavors to arrest its progress. The utter helplessness

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ness of these cases and the limited means at our disposal almost check our enthusiasm, but thanks to diligent workers, the outlook for the future is more encouraging. . . .

From an Original Article on "On the Swift-Ellis Treatment of Cerebrospinal Syphilis," by Philip King Brown, M. D., and W. T. Cummins, M. D., San Francisco.—Neither mercury and iodine nor salvarsan intravenously have succeeded in bringing dependably satisfactory results in the treatment of certain syphilitic lesions of the central nervous system and especially not in the parasyphilitic states of tabes and paresis. The growing knowledge of how small an amount of any curative agent as administered ordinarily is excreted into the cerebrospinal fluid, and the brilliant results from the use of antineurosyphilitic serum applied locally make it reasonable that a furtherance of the intraspinal method may produce satisfactory results in cases of syphilis of the central nervous system resisting ordinary treatment. The spirocheticidal action of salvarsan and the blood serum of recently salvarsanized patients has been demonstrated. . . .

From an Original Article on "The Butyric Acid Test of Noguchi as an Aid in Diagnosis," by F. F. Gundrum, M. D., Sacramento.—The cerebrospinal fluid is the liquid which bathes the brain and spinal cord, acting, first, as a hydraulic cushion to protect against jars; second, as a medium to carry away waste products; and third, as a reservoir to regulate intracranial pressure. . . .

From an Original Article on "Six-Hour Stasis," by Howard E. Ruggles, M. D., San Francisco.—A six-hour residue in the stomach is the best evidence we have of pathology somewhere. It is a perfectly definite thing—easily recognized. The normal limits of peristalsis or tone

(Continued on Page 26)

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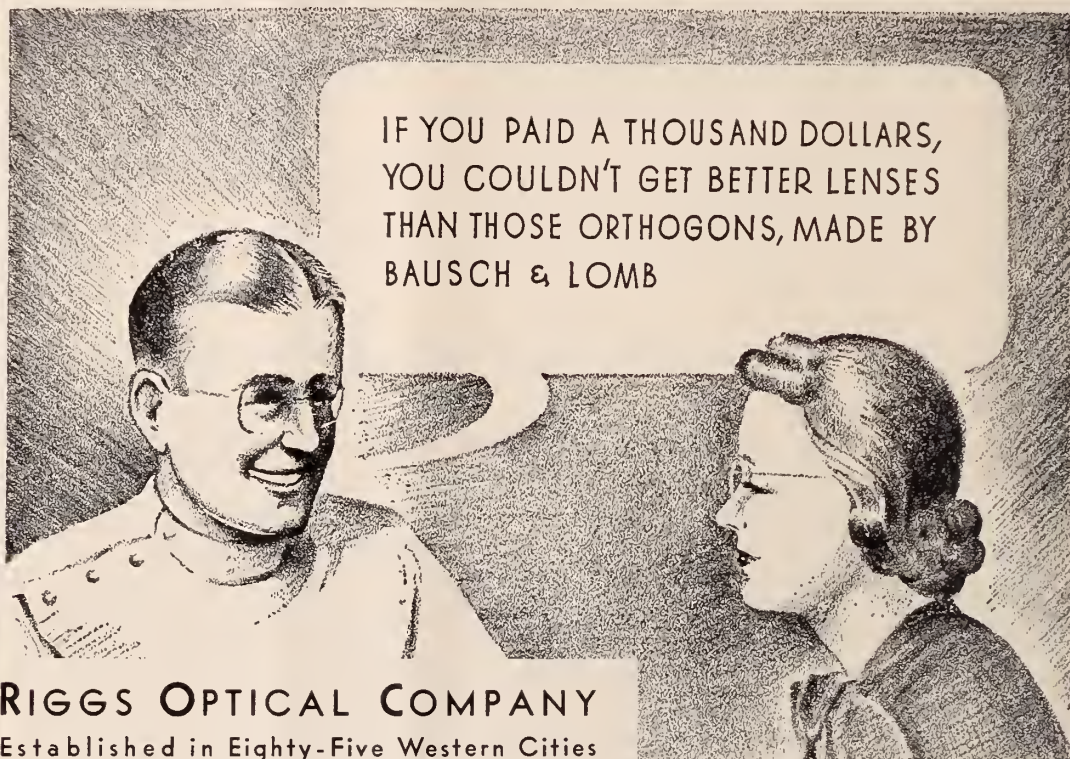
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## TWENTY-FIVE YEARS AGO

(Continued from Page 24)

vary widely and it is often impossible to say definitely whether they are pathologic or not, but a residue is evident—whenever it is large enough to be recognized it means trouble. . . .

*From an Original Article on "Uncomfortable Babies," by Langley Porter, M. D., San Francisco.*—The uncomfortable baby presents one of the most trying problems that the clinician has to face, for when the infant is in distress the whole family becomes neurasthenic and the trials of the attending physician are numberless.

It is unfortunate that too often our views of the cause of discomfort in these little ones are limited to the digestive tract; and even in this field, to disturbances of gastric and intestinal digestion, while as a matter of fact the underlying root of the disturbance may be in an entirely different area. . . .

*From an Original Article on "Intracranial Pressure," by Howard C. Naffziger, M. D., San Francisco.*—The statement is often made that nerve cases are discouraging. It is said that they are very interesting in a diagnostic way, but that there is not much of value in treatment. The interest is too often confined to the anatomical or pathological findings. There is surely much less ground for such remarks now than ten years ago. Treatment, medical and surgical, has lagged behind diagnosis more in this than in any other department of medicine. . . .

*From an Original Article on "Echinococcus in California," by J. R. Snyder, M. D., Sacramento.*—The most common cyst of the liver is the hydatid or echinococcus.

The cause of the echinococcus cyst is the *Tenia echinococcus*, a parasite found in the upper intestine of the dog, wolf, and occasionally sheep. In California it is said that many cysts are found in the lungs of sheep; one instance was related to me in which a raccoon was killed and the hunter said that the liver was filled with "grapes." The ova enters the gastro-intestinal tract of man with food or drink, where the capsule is digested and the embryo liberated. The larva has six hooklets as well as four suckers, which aid it in boring through the tissues. It finds lodgment in the various organs, including the liver, kidney, lungs, heart, nervous system, etc. . . .

*From an Original Article on "A Brief Summary of the Registration Law and the Requirements for Accrediting Schools for Nurses," by Anna C. Jammé, Director, Registration Department.*—Chapter 319 of the Statutes of 1913, known as the Nurses' Registration Act, became effective August 20. In accordance with the provisions of the Act, the State Board of Health established a bureau for registration of nurses, the work of which was started early in October.

The law provides for the examination and registration of applicants who are graduates of accredited training schools for nurses and for the issuance of a certificate which will entitle the nurse to be known as a Registered Nurse. It also places within the State Board of Health the power to revoke a certificate for any reason that renders a nurse unfit or unsafe to care for the sick, after full and fair investigation of the charges made against her. A penalty is attached for any person not holding a certificate of registration, who uses the term "Registered Nurse" or who uses the letters "R. N." after his or her name or for violating any of the provisions of the Act. There is provided a period of waiver until July 1, 1914, during which

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THE DOCTOR IS OF NECESSITY A STUDENT OF LIFE. Each new patient presents a new study, a new problem. Psychology plays an important rôle in the course of treatment he prescribes. With some patients he must be frank to a point of harshness, with others he must be gentle and coaxing. The nature of the illness and, more particularly, the nature of the patient determine his attitude. He knows from experience the value of bolstering his patient's morale. As a student of psychology he knows that few things are more depressing to a woman than the fear that she is losing her charm, that when she no longer cares how she looks the chances are she has lost touch with a vital interest in life. And because he appreciates the importance of a sensible interest in personal appearance, he quite rightly encourages his patients to look their best at all times. FINE COSMETICS appeal to that interest. That is why they deserve to be recommended by doctors who are, after all, greatly concerned with their patient's morale.

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time applicants who are graduates of a reputable training school, connected with a general hospital, may be registered without examination.

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2. After July 1, 1914, to register upon examination only graduates of schools maintaining the standard established.
3. To establish and maintain a public register of nurses.

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From "Society Reports":

*Sacramento Society for Medical Improvement.*—Regular meeting May 19, 1914, Hotel Sacramento, 8:40 p. m., President J. W. James in the chair, twenty-five members present. Minutes read and approved.

The meeting was devoted to reviews of current medical literature. The following members gave reviews of the following journals:

- J. B. Harris, Surgery, Gynecology, and Obstetrics.
- E. T. Rulison, New York Medical Journal.
- M. Seavy, Interstate Medical Journal.
- E. W. Twitchell, Münchener Medizinische Wochenschrift.

Discussion by Doctors Jones and Beattie.  
Doctor Beattie suggested filing journals of members at City Library.

Dr. W. Cress elected to membership.  
Dr. G. Wilson elected to membership.  
Adjourned 10:30 p. m.

F. F. Gundrum, Secretary.

*"Director Chosen for Hooper Foundation."*—The Medical Department of the University of California announces that Dr. George H. Whipple has been appointed director of the George Williams Hooper Institute of Medical Research. Doctor Whipple is at present associate professor of pathology in the Johns Hopkins Medical School, where he has been closely associated with the master pathologist, William H. Welch, and where he has, for some years, been the active head of the department. . . .

*"Worthy of Patronage."*—If firms in distant sections of the country advertise goods in the Journal which our readers need and which cannot be purchased at home, it is good business policy to buy from these advertisers. The fact that we admit these advertisers to our columns is proof they have been investigated and are believed to be worthy of your patronage.

*"Reciprocate."*—California welcomes the people who spend their money in this state. Our Eastern advertisers spend their money here. It is a duty we owe them to reciprocate by buying from them instead of nonadvertisers.

*"Cleaning Out Frauds."*—When this Journal started in 1902 and announced that it was going to fight fraudulent and patent medicine advertising, everybody laughed and some swore. Three years later the American Medical Association started the Council on Pharmacy and Chemistry and the cleaning-out process became much easier. Many journals and manufacturers opposed the work of the Council, for quack medicine advertisers were good pay. . . .

*"Important Request: Regarding Animal Experimentation."*—To the Editor: The Bureau for the Protection of Medical Research of the American Medical Association is

(Continued on Next Page)



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## TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

desirous of obviating as completely as possible any cause for complaint against animal experimentation, as well as any criticism of new methods in medical practice. Much of the "evidence" cited by hostile agitators is taken from articles in journals devoted to the medical sciences.

Instances are frequently cited in which it is claimed that, as there is no mention of anesthetics, animals have been experimented upon without anesthesia. Well-known methods of medical diagnosis are described as experiments, because authors have been careless in their descriptions. . . .

Thanking you for any assistance in securing these results, I am

Very truly yours,

Walter B. Cannon,  
 Chairman, A. M. A. Bureau for the  
 Protection of Medical Research.

June, 1914.

## BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 72)

seized him at the home of his brother-in-law, where he was staying with his wife and two small children, according to the United Press. He was charged with first degree murder in a complaint issued by the district attorney's office. . . . Deputy District Attorney Seymour Wurfel, assigned to the bizarre case when tips were received that it had wider ramifications, said he would conduct a thorough search of death certificates issued by Dr. G. H. Parchen, alleged slayer of the young wife, to discover if any other bodies had been sent out of the state after mysterious deaths. The San Diego chiropractor and his brother, Frank, were accused of performing an illegal operation on Mrs.

Anderson and shipping her body to Luling, Texas, after the operation proved fatal. . . ." (San Diego Sun, June 1, 1939.) (Previous entries, October, 1934; January and April, 1935; April, 1938.)

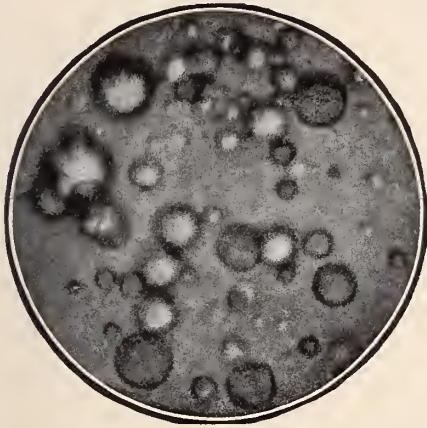
"Accused of practicing medicine without a license, W. P. Seibert, 335 Monterey Road, South Pasadena, was arrested yesterday on complaint of Sterling W. Brooks, special agent for the State Board of Medical Examiners. . . ." (Los Angeles Examiner, June 7, 1939.) (Previous entries, June, 1926; September, 1929.)

"Dr. O. A. Welsh, Ventura physician, was granted five years' probation when he appeared at 10 o'clock this morning in the Ventura County Superior Court. Judge Louis C. Drapeau made a year's period in the county jail as part of his probation. Ten minutes after he left the courtroom, Doctor Welsh became an inmate of the county jail. . . . The Ventura physician had been found guilty of malpractice, involving abortion, several weeks ago by a jury." (Oxnard Courier, June 3, 1939.) (Previous entry, June, 1939.)

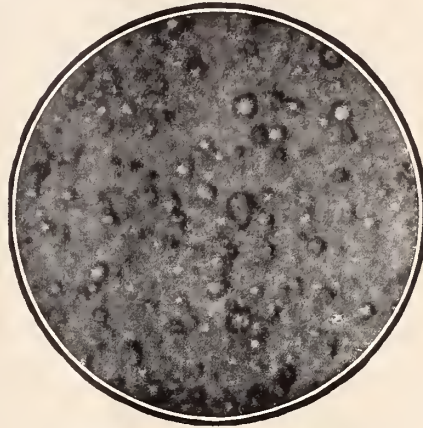
"Little Chief White Eagle yesterday received a taste of white man's justice. The Chief, also known as Bill Reed, fifty-eight, pleaded guilty to selling his herb compound in violation of the State Medical Practice Act in Venice last May 21. White Eagle, who appeared before Municipal Judge Harold B. Landreth with his braided hair hanging below a beaded sombrero, was sentenced to ninety days in jail. . . ." (Los Angeles Times, May 30, 1939.)

"Stanchly confident he would win vindication, Dr. J. Carl Cummings, Glendale physician, yesterday was anxious that  
 (Continued on Page 30)

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<sup>1</sup>Journal AMA 111:703 (August 20, 1938)

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### Bequest Forms: Unto the California Medical Association\*

#### FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of \$—— to be known as the —— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of \$——, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the —— Gift, the following described real property situate in the County of ——, State of California, and more particularly described as follows, to wit:

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

\* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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### BOARD OF MEDICAL EXAMINERS

(Continued from Page 28)

his trial on the accusation that by an illegal operation he murdered Mrs. Margaret Simon be started at the 'earliest possible moment.' . . . Mrs. Simon died on May 20, shortly after she was assertedly operated upon." (Los Angeles Examiner, May 27, 1939.)

"Dr. Frank W. Young, forty-three, onetime prominent Hollywood physician, last night was arrested by Beverly Hills police and charged with forgery in connection with the passing of an allegedly bad check at the Caillet Drug Co., 9779 Wilshire Boulevard. Detectives C. H. Anderson and A. H. McBain, who made the arrest at 109 South Hobart Boulevard, said the check, made out for \$15, was one of many allegedly passed by Young. Police said the physician also is wanted in Bisbee, Arizona, in connection with other check forgeries." (Los Angeles Daily News, May 31, 1939.)

"Paul DeGaston, Seattle bacteriologist, recently convicted of performing illegal operations on two Seattle girls, was sentenced to five years in the penitentiary yesterday by Superior Judge Malcolm Douglas. Sentence was pronounced after a protest by Defense Attorney Warren Hardy that a Seattle doctor has an establishment which is 'a monument to 10,000 unborn infants,' and yet has gone unpunished. . . . Chief Criminal Deputy Prosecutor John M. Schermer denied Hardy's assertion that DeGaston was charged for political reasons and expressed amazement at Hardy's argument that, because DeGaston is a skilled technician, he should have a lighter sentence than men who have bungled, injuring or killing their patients. 'This man has been in this business for profit for years,' Schermer said of DeGaston. He reported the defendant was indicted



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in 1936 by a San Francisco grand jury for illegal operations in a coast-wide ring, but testified for the state and never was tried. Schermer also told the court that DeGaston was acquitted in Los Angeles on a murder charge in connection with another alleged illegal operation. . . ." (Seattle (Wash.) *Post-Intelligencer*, May 7, 1939.) (Previous entries, October, 1934; February, 1935; July, 1936; Annual Report, Board of Medical Examiners, 1936.)

"Our man who checks on doctors has just sent in a most interesting report on the activities of the Board of Medical Examiners. This Board checks carefully on the licensed doctors, gives examinations, fines violators, and generally keeps the doctors up on their toes. . . . On charges of unprofessional conduct, forty-nine medicos were called to the bar of the examiners. Most of the offenses occurred among Southern California practitioners. One-man 'legally chartered' medical schools issued a flock of funny diplomas. . . . Many brands of drugs of a very dangerous character were discovered by the examiners. One of the worst is dinitrophenol, used in the treatment of obesity. Women, striving to get those sylphlike figures have been made blind by the drug. A three-year-old boy, who found the pills in his mother's purse, was literally burned to death after he swallowed them. . . . One racket of considerable proportions is that practiced by quacks on elderly people who are partially blind. Many arrests have been made. . . . It is shown that California medical graduates rate very high when they take their final examinations before the State Board. . . . This branch of the state government costs the taxpayers very little, and it did a whale of a good job." (Lodi *Times*, April 19, 1939.)

"Dr. Patrick S. O'Reilly, forty-one, prominent Pasadena and Glendale physician (osteopathic) surrendered in Judge Frank H. Lowe's Glendale court yesterday on a charge of

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attempting to criminally attack his telephone operator and was released on \$2,500 bail. . . . Through his attorney, Bernard Brennan, the physician vigorously denied the charges. 'The doctor is innocent,' Brennan told newsmen, 'a man in his position with his contacts and his money doesn't need to do a thing like that. Other names, however, will be brought into the case.' . . ." (Los Angeles *Daily News*, May 19, 1939.)

"Dr. Harrison J. Asher, 46-year-old chiroprapist with office at 291 Geary Street, yesterday was charged with performing a criminal abortion. Mrs. Bertha Calclough, twenty-seven, of 162 Fourth Avenue, charged the doctor operated on her on April 26 at his office. Homicide Squad Inspector Al Corassa said Doctor Asher admitted he did the operation because he 'needed money.'" (San Francisco *Chronicle*, May 25, 1939.) (Previous entry, December, 1937; April, 1938.)

(Continued on Page 34)





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# CALIFORNIA AND WESTERN MEDICINE

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**Leaflet Regarding Rules of Publication.**—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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## EDITORIALS†

### CALIFORNIA DEPARTMENT OF PUBLIC HEALTH BILL: ASSEMBLY BILL 2107 DEFEATED

**Assembly Bill 2107 Sought to Change Existing Board of Public Health.**—On January 25, 1939, Assemblyman Ralph C. Dills of Compton, Los Angeles County, introduced Assembly Bill 2107 to modify the California Health and Safety Code relating to the State Department of Public Health. The bill was amended in Assembly on April 19, and again on May 3. When the measure first made its appearance, there was some doubt as to who were responsible for its introduction and support. As hearings progressed, however, the motivating influences became apparent, since it developed that certain members of the faculty of the University of California were, presumably, among the major proponents of the legislation.

\* \* \*

**Connection With the California Medical Economic Survey.**—An interesting sidelight was the fact that one or more of the sponsors had been connected with the California Medical Economic Survey—that unhappy experience through which a levy was made upon the savings of the California Medical Association in the amount of \$46,126.84!\*

It may be of interest to recall that, on page xxxv of the California Medical Economic Report, in referring to those who had given him aid, Survey Director Paul A. Dodd of the University of California at Los Angeles, is quoted as follows:

Acknowledgment for special aid and coöperation is made to the following:

Dr. E. F. Penrose. (Prepared the manuscript for Part IV: The Organization of Medical Services—The Public Health Situation in California; Nature and Extent of Public Activities; Health Insurance.) . . .

Professor Samuel C. May,‡ because of his wide experience in the field of public administration, has been most helpful in formulating sound practical recommendations.

In passing, it may also be observed that Professor Penrose recently appeared before an Assembly Committee to speak in favor of the passage of A.B. 2107; and that Professor May was active in supporting the compulsory health act, A.B. 2172.

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

\* For financial report, see page XXI of the California Medical Economic Survey.

‡ Professors Penrose and May are members of the Berkeley faculty of the University of California.





**Illuminating Item in the "University of California Clip Sheet."**—In addition, the following somewhat naïve item, which appeared in the University of California Clip Sheet of May 28, furnishes this information concerning the interest and activities of the "Bureau of Public Administration of the University of California," with which Professors Penrose and May are affiliated:

#### STATE HEALTH BOARD CHANGES SUBJECT OF STUDY

Facts and figures regarding the trend of state governments everywhere toward a state health department controlled by a single individual rather than a board, are set forth in a study made by the Bureau of Public Administration of the University of California for the information of a number of members of the present state legislature. The study states that the problem now is to determine whether the public health of the state can progress better under a board relatively independent of the governor, as at present, or under a single trained and qualified executive who would be responsible to the governor alone.

The study points out that, in California, members of the board of health are appointed for overlapping four-year terms by the governor, and that, therefore, most of the governor's first term has elapsed before he can appoint a majority to the board. This, it is contended, makes the board virtually independent not only of the governor, but also of the governor-appointed executive officer or state director. It is difficult under these circumstances for the governor to hold the director responsible for the work of the department, the study points out. . . .

In regard to what has been presented above, it may be stated that those members of the medical profession who have had the privilege of reading the text of the comments on the work of the California State Department of Public Health as submitted in Professor Dodd's manuscript copy—presumably prepared in good part by Professor Penrose—were not surprised that they should have expressed opinions in favor of the passage of A.B. 2107—introduced by Assemblyman Dills, whose occupation is given in the Assembly roster as that of a teacher.

\* \* \*

**Nature of Proposed Law Excites Wonderment.**—It is of course the privilege of all citizens to advocate legislation, concerning public needs, that is in harmony with their own views; and no exception is here taken to the exercise of that right.

It may not be out of place, however, to express surprise at the nature of the supposed improvements included in A.B. 2107; and particularly so, since the contemplated changes, had they been enacted into law, would have done away with the efficient set-up that has existed since the year 1870, at which time the State of California had the honor of creating the second state board of public health to be established in the United States; Massachusetts being the first, by virtue of an earlier session of its legislature.

Astonishment concerning A.B. 2107 is intensified as the three drafts (of January 25, April 19, and May 3) are read, and the nature of proposed changes and their significant amendments are noted.

\* \* \*

**Interesting Legislative Course of A.B. 2107.**—Because the course of A.B. 2107 vividly portrays the nature of the problems which confront

the California Medical Association Committee on Public Policy and Legislation, when it is called upon to watch the drift of prospective legislation having relationship to public health and medical practice standards, and also for reasons already indicated, it may be worth the while to comment at greater length on A.B. 2107,\* as a case in point.

\* \* \*

**California Board of Public Health as Now Constituted.**—Under the existing California Health and Safety Code, the State Board of Public Health consists of eight members—seven Doctors of Medicine and one Doctor of Dental Surgery, inclusive of the Director of Public Health, who is a member and the secretary of the Board. The Director, appointed and serving at the will of the Governor, is the only salaried officer. The other members are appointed in four-year staggering terms, to permit continuity of policy. The Director is the executive officer of the Board and works under its direction, with power to act in public health emergencies, but subject to the approval of the Board.

At its meetings, lasting usually the better part of a day, the Board considers pending business, and during intervals, the San Francisco members act as an executive group, and in meetings held from day to day, work out lines of action with the Director, as new problems arise.

The efficient services rendered by the Department are reflected in the low morbidity and mortality rates of the State, and the excellent manner in which public health problems and emergencies have been handled during the three-quarters of a century in which the Department has been in existence.

\* \* \*

**Basic Purpose of Proposed Law: A.B. 2107.**—Under the influence of the groups previously mentioned and associated sponsors, A.B. 2107 was introduced—a proposed law that would have blotted out an organization set-up that has handled in splendid manner the public health problems of California! To make the matter worse, the suggested changes were emphasized as much needed

\* The various references printed in the "Assembly Weekly History" as A. B. 2107 pursued its way through the Assembly until lost in the Senate, are shown in the following quotations:

2107—Dills, January 25. To Committee on Governmental Efficiency and Economy.

An act to amend Sections 101, 107, 110, 111 and 113 of, to repeal Sections 102, 103, 104, 106 and 108 of, and to add Sections 102, 103 and 104 to the Health and Safety Code, relating to the State Department of Public Health.

January 25—Read first time. To print and committee.

April 18—From committee: Be amended and re-referred.

April 19—Read second time, amended, and to engrossment.

April 20—Reported correctly engrossed. Re-referred to Committee on Governmental Efficiency and Economy.

May 2—From committee: Be amended and re-referred.

May 3—Read second time, amended, and to reengrossment.

May 5—Reported correctly reengrossed. Re-referred to Committee on Governmental Efficiency and Economy.

May 19—Read second time.

May 29—Read third time, passed, title approved. Notice of motion to reconsider given by Mr. Field.

June 3—Reconsideration refused. To Senate.

June 5—In Senate. Read first time. To Committee on Public Health and Quarantine. Withdrawn from committee. Re-referred to Committee on Governmental Efficiency and Economy.

[June 15—Tabled in committee.]

betterments, with implications, of course, that the present and preceding public health boards had not given efficient service.

Let us see, however, what was the nature of the proposed improvements, as presumably sponsored by the "Bureau of Public Administration of the University of California."

\* \* \*

**An Enlarged Rôle for the Director of Public Health.**—The essential nature of the intended changes is given expression in Section 101 which reads under the existing code:

101. The department is under the control of the State Board of Public Health.

The above was changed in A.B. 2107 as submitted on January 25, 1939, to read:

101. The department is under the control of the [\*State Board] *Director of Public Health who shall succeed to and is hereby vested with all of the duties, powers, purposes, responsibilities, and jurisdiction previously vested in the State Board of Public Health except as in this chapter otherwise provided.*

*All administrative and executive powers and duties of the department are hereby vested in the director, to be exercised by him in accordance with the policies and rules and regulations established by the State Board of Public Health hereinafter created.*

On April 19, amendment deletions were made to the second paragraph, to make it then read:

All administrative and executive powers and duties of the department are hereby vested in the director.

In other words, the salaried Director would be alpha and omega, the beginning and end of public health administration in California!

\* \* \*

**Major Function of the New Board to Be "Advisory."**—To take the place of the Board of Public Health, as now constituted, a new board was to be created, as follows:

102. There shall be and there is hereby created in the department a State Board of Public Health, consisting of the Director of Public Health and six other members which shall act solely in an advisory capacity and shall have the power, and it shall be its duty to formulate policies and to establish rules and regulations for the government of the department.

It is to be noted that the new board "shall act solely in an *advisory capacity*." In practical politics, such an "advisory board" is usually construed to be merely a gesture or figure head board. Common sense and observation verify this.

\* \* \*

**Proposed Changes in the Complexion of the Board.**—And now, as to the complexion of the proposed board, as contemplated in the A.B. 2107 draft of January 25, 1939:

104. Of the members of the board other than the director, three shall be licensed physicians and surgeons, holding the degree of doctor of medicine, with experience in public health and sanitary science; one shall be a sanitary engineer; and two shall be representative of the interests of the public.

In the above draft, the number of licensed physicians and surgeons are reduced to three, although it is still stipulated that they shall hold "the degree of doctor of medicine."

The last line, that two of the board members "shall be representative of the interests of the public," suggests the query: "What interests were

the other members of this public health board supposed to represent?"

\* \* \*

**"Doctor of Medicine" Requirement Eliminated.**—Additional amendments provided that:

*The director shall be a physician of at least six years' experience in the practice of his profession and of skill and experience in public health and sanitary science.*

*He shall cooperate to the fullest extent with the activities of the United States Public Health Service.*

It is observed that the provision that the Director must be a physician *holding the degree of doctor of medicine*, having been dropped, the Governor could appoint an osteopathic physician as Director, if such was his desire. The gratuitous insertion of coöperation with the United States Public Health Service seemingly adds nothing more than verbiage, because at no time in the past has there been lack of such coöperation.

\* \* \*

**Other Board Changes.**—Let us turn now to A.B. 2107, as amended on April 19, 1939, in which, perhaps, changes may be detected that might have possible appeal in efforts to secure votes of assemblymen and influential support from other sources.

Section 102 on April 19 was amended to form a board consisting of "ten" instead of only "six" members; and to make certain that the board would be only "advisory" and nothing more, the words,

and shall have the power and it shall be its duty to formulate policies and to establish rules and regulations for the government of the department,

were deleted, and in their stead, the following was inserted:

*The board shall do all of the following:*

1. *Act as an advisory board to the director.*
2. *Elect one of its members annually as chairman.*
3. *Adopt sanitary rules and regulations within its jurisdiction, subject to the approval of the director.*
4. *Conduct hearings and make decisions subject to the approval of the director.*
5. *Advise the director when called upon by him to do so.*  
*The board shall have no executive, administrative or appointive powers.*

\* \* \*

**Qualifications of the New Board.**—Section 104 was also changed. The first draft of that section had read:

[\*104. Of the members of the board other than the director, three shall be licensed physicians and surgeons, holding the degree of doctor of medicine, with experience in public health and sanitary science; one shall be a sanitary engineer; and two shall be representative of the interests of the public.]

The above was deleted and a new arrangement provided:

104. *Of the members other than the Director of Public Health, four shall be licensed physicians and surgeons with experience or training in public health and sanitary science; one shall be a qualified sanitary engineer; one shall be a qualified dentist; one shall be a representative of the interests of organized labor; one shall be a representative of the interests of industry; one shall be a representative of agriculture; and one shall be a representative of women's organizations.*

The inclusions of the new board of ten are also worthy of reflection, for the insertions were supposedly made for a purpose. Of course, inasmuch

\* Text having an asterisk (\*), and in brackets, relates to portions deleted from previous drafts.

\* Text having an asterisk (\*), and in brackets, relates to portions deleted from previous drafts.



as the amendments concerning the advisory board's functions had virtually emasculated all power, there could be no very valid reason why the size of the board, for vote-getting or other purposes, should not have been increased. The wonder is, that it was not enlarged even more, to have made it, if possible, all-inclusive!

The number of physicians was increased from two to four, but the stipulation that they should be "doctors of medicine" was deleted. In other words, the four physicians could all be cultist physicians.

\* \* \*

**Term of Office of the Director.**—According to this draft of April 19, the Director would hold office, not at the pleasure of the Governor, but until January 15, 1943, and why, we do not know. In case of incompetence, such a provision would naturally add to the legal difficulties of his removal.

The qualifications of the Director are also changed, and his salary is without a ceiling. In the amended paragraph, the Director again must be a "doctor of medicine":

The director shall be a physician and surgeon, holding the degree of doctor of medicine, of at least six years experience in [\*the practice of his profession and of skill and experience in public health and sanitary science] *public health or sanitary science, or both.* He shall receive a salary [\*of ten] *to be fixed by the Governor, which shall not be less than six thousand dollars per annum and necessary expenses incurred in the performance of his duties.*

Although when the third draft, that of May 3, is examined, it will be found that Section 107 was amended, to delete the words, "holding the degree of doctor of medicine."

\* \* \*

**A.B. 2107 Is Passed by the Assembly!**—On May 29, the draft of May 3 secured the favorable vote of the Assembly, the fight against its passage being led by Assemblymen Hugh M. Burns of Fresno and C. Don Field of Glendale. Efforts to secure reconsideration in the Assembly failed and the bill went over for placement on the Senate calendar, where it was allocated to the Committee on Public Health and Quarantine, to be later transferred to the Committee on Governmental Efficiency. After due consideration, the latter Committee fortunately voted to table the measure, and the bill died in that Committee.<sup>†</sup>

\* Text having an asterisk (\*), and in brackets, relates to portions deleted from previous drafts.

† So certain were some of the proponents of A.B. 2107 concerning its passage and approval by Governor Olson, that they were indiscreet enough to send out an anticipatory news release! One such item from the Huntington Beach Signal of June 6, is here reprinted:

[COPY]

#### HEALTH BILL AWAITS GOVERNOR'S OKEH

Changes in the state department of health, which authorities are said to agree will mean more efficient service, yet will involve no increase in appropriations, were authorized here by Assemblyman Ralph C. Dills and now on the Governor's desk, is certain to be signed since Olson is in accord with the program.

"The department of health occupies a position of increasing responsibility," Dills said. "It is entrusted not only with the expenditure of state funds, but also with the dispersing of large federal grants. It is, therefore, necessary for the well-being of the people that it be administered by a fully competent personnel. The director will now be given executive power and sanitary rules and regulations will be strictly enforced."—Huntington Park Signal, June 6, 1939.

**Thanks to All Who Aided in the Defeat of A.B. 2107.**—The foregoing has been given space at some length, not only owing to the principles and issues involved, but because the bill, in spite of its many deleterious features, actually was passed by the Assembly, and that, notwithstanding vigorous opposition. Fortunately in the Senate, as stated, it was given a committee death. Had it gone on to passage and enactment into law, public health interests of California would have suffered a terrific jolt, and scientific medicine would have been placed in an unenviable position for years to come.

Thanks, therefore, are here expressed to all who gave aid in calling the attention of the representatives at Sacramento to the public health menace of A.B. 2107, and thus assisted in the defeat of a measure that never should have been proposed, and whose provisions belied the high sounding arguments of some of its sponsors!

#### WAGNER HEALTH BILL: S. 1620

**Articles on Wagner Health Bill Worthy of Perusal.**—U. S. Senator Robert F. Wagner of New York is the sponsor of the Senate bill (S. 1620) popularly known as the "Wagner Health Bill," a proposed federal law to which considerable space has been given in recent issues of CALIFORNIA AND WESTERN MEDICINE.\* The *Journal of the American Medical Association*, in its issue of June 10, 1938, on pages 2424 and 2425, features the recent hearing on the proposed law, held on May 25, before the subcommittee of the Committee on Education and Labor of the United States Senate in Washington, D. C. It is to be hoped that many members of the California Medical Association will take time to at least scan the articles here referred to, because of the great importance of the proposed federal legislation to public health and medical practice.

\* \* \*

**Two Items of Special Value.**—The report of the Reference Committee of the House of Delegates, made at the American Medical Association meeting in St. Louis on May 17, and which appeared in our June issue, on page 447, is worthy of special consideration. Of great interest, also, is the statement of Haven Emerson, M. D., Professor of Public Health Practice at Columbia University (also given in the same issue, on page 460), whose testimony before the Washington subcommittee may be found on page 2428 of the *Journal of the American Medical Association* for June 10.

Concerning the testimony of Doctor Emerson and of other officers and representatives of the American Medical Association, as given in the *Journal of the American Medical Association*, some physicians may be reluctant to give the time necessary for its perusal. However, an old saw affirms that circumstances alter cases; and that

\* Among others, see items as follows: June issue, on pages 447 and 460; May, on pages 368 and 388. In current issue, among press clippings, see an item on page 65.

applies to the Wagner Bill, S. 1620, which, if enacted by the present Congress, would no doubt lead to revolutionary changes in medical practice in many states of the Union. Forewarned is to be forearmed, and the elaborate and complicated "health improvement" legislation, so insistently advocated not only in one state after the other, but in the federal congressional halls as well, means only one thing, namely: It is most urgent that every physician should realize how medical practice standards are menaced by much of the proposed legislation, and that the suggested laws are not to be disregarded or scoffed at as the idle vagaries of well-meaning theorists. As a matter of fact, the contrary is practically the case; that is, much of the proposed legislation has been intensively studied by the proponents of the measures, who have carried on a vigorous propaganda campaign among all social, and especially the mass-voting classes, in efforts to secure from among the members of such groups their most active allies for the passage of the so-called "health laws."

It has been stated that the Wagner Health Bill will probably not be voted out of committee during the present session of Congress; but that does not mean it will not reappear, with stronger backing than ever, in the succeeding Congress.

\* \* \*

**County Societies Should Place Wagner Bill on Their Programs.**—It is urged upon the officers and program committees of every component county society, to arrange to have their first meetings, after the summer vacation months just ahead, given over to a consideration of California and national legislation, related to public health and to medical practice. In every county society there are always some members who are watching legislative trends; and in the absence of other speakers, some of these colleagues might well be invited to take part in a symposium discussion on these problems. Were the invitation to be extended now, and in due time, and proper publicity thus given to the prospective meeting, worthwhile attendance could be brought out, with much good accruing through the exchange of opinion and discussion.

Remember, the Wagner Health Bill, now before Congress, is not dead. Its loosely drawn text—whether drafted so intentionally or otherwise is not known—would permit vast extensions into the field of curative medicine, to the detriment of real progress in preventive medicine, with additional possibility of tremendous injury to curative medical practice and hospitalization standards and investments. Take the time, therefore, in some leisure periods to acquaint yourselves with these matters. You may be surprised to learn what is going on.

#### VACATION PLANS

**Vacation Periods Are Welcome.**—Summer months, in recent years, have taken on somewhat of a new meaning for many physicians, that being the period during which relief is nowadays obtained

from the frequent meetings of hospital staffs, medical and other societies.

The vacation change in the routine of the calendar allotments of the year is a welcome variation; and to practitioners of the healing art should have special appeal. The hope is expressed that, for longer or shorter periods, all physicians may be able so to arrange their affairs as to permit at least short sojourn amid different surroundings and scenes, in order that they may return to their work and responsibilities, refreshed in body and mind, and stimulated to take up the tasks of each day with renewed energy and enthusiasm.

\* \* \*

**Contemplative Introspection of Value.**—A vacation period can be made to serve to good end, also, if some of its time is given over to leisurely introspection and evaluation of one's routine activities; with self-queries on possible rearrangements and improvements. Such contemplation need not be limited to purely personal matters. Indeed, the consideration of those relationships that have to do with collective action may be even more important. Certainly, in times like the present, with so many assaults in the forming, and all intended for attack on medical practice procedures and standards (and thus, by indirection upon the very medical profession that has been responsible for most of the work giving to the United States the lowest morbidity and mortality rates among civilized countries), it is desirable that every physician should develop an active consciousness of his obligations to his profession and to his fellow physicians. It may be quite in order, therefore, to place among the handbag literature, to be browsed over during a vacation sojourn, some of the many printed articles to be found in books, medical and other magazines, in which health insurance plans, in their various legislative and other forms, are discussed.

\* \* \*

**Modern Day Propaganda May Not Be Ignored.**—It is important for physicians to keep in mind that everywhere men and women's service and other clubs are placing these topics on their lecture and study programs, and that proponents of plans antagonistic to the best interests of scientific medicine and the public health are more than active in efforts to promote acceptance of their ideas and promulgations at such meetings. Auditors often turn to their physician friends for authoritative information on the issues under discussion, and doctors of medicine themselves should be so well informed that clarifying and acceptable answers may be given to the requests for actual facts. Let it not be forgotten that modern day propaganda means cultivation of public opinion, and that public opinion may not be ignored. Wherefore, once again, each physician is urged to keep in touch with the trend of printed literature on medical service plans, and on public health and allied activities in all their various activities, so that he may be the better prepared to do his part in the educational campaign ahead.



### FIFTY-THIRD CALIFORNIA LEGISLATURE: A RESUMÉ ON PUBLIC HEALTH AND MEDICAL MEASURES\*

**Legislature of 1939 Holds Record for Length of Session.**—The fifty-third California Legislature, with a session of 131 days, the longest on record, finally adjourned on June 20. Owing to the stress placed upon the proposed compulsory health law, other measures of vital interest to the public health were almost forgotten by many members of the Association. Not so, however, with the California Medical Association Committee on Public Policy and Legislation, and the many physicians who gave that committee and its effective work, as keymen and district workers, the most loyal coöperation.

\* \* \*

**Appreciation for Services Rendered.**—For the information of readers, we enumerate, with condensed comment, some of the more important measures disposed of by this legislative body, but before proceeding we desire once more to express appreciation, on behalf of the Association's officers and the Committee on Public Policy and Legislation, for the fine expression of loyalty and generous endeavor constantly in evidence, when appeals were made for county society and individual aid.

To the chairman of the Committee, Dr. Junius B. Harris of Sacramento, who this year, as in the past, whole-heartedly gave of himself to protect the public health and medical interests of California, thanks are again given. We only wish it were possible to fittingly express in words, when language seems weak, our sense of obligation for the services he has so splendidly rendered.

\* \* \*

**Comments on Some Major Public Health and Medical Practice Legislation.**—To comment now, if briefly, on some of the measures of special interest to physicians:

For convenience in consideration, we shall take these up in turn under the headings: (1) Health Insurance; (2) State Board of Public Health; (3) State Board of Medical Examiners; (4) Cultist; (5) Nurses; (6) Hospitals.

\* \* \*

#### (1) Proposed Health Insurance Legislation.

(a) *S.B. 1128*, introduced on January 25, 1939, was referred to the committee on February 2, and never reported out. Died in committee.

(b) *A.B. 2501*, introduced on January 25, was referred back and forth to Assembly committees. Died in committee.

(c) *A.B. 2172*, introduced on January 25. This was the much-discussed Compulsory Health Bill, sponsored by the State Administration, which went down to defeat in the Assembly on June 19. For detailed comment concerning this measure, see the

June issue of CALIFORNIA AND WESTERN MEDICINE: editorial comment on page 394; Assembly roll call on the initial trial of strength, on page 448; other comments on page 454. The Assembly vote, that prevented this much-sponsored and vigorously supported act from going to the Senate, appears in this issue, on page 51. It is hoped all readers will refer thereto.

The chapter on compulsory health insurance is not closed with the defeat of *A.B. 2172* in the fifty-third California legislative session, because Governor Olson has power to place it, or a similar measure, on a special State election ballot, if he so chooses; and if the warnings or threats of the proponents of *A.B. 2172* are well founded, it is more than probable that such a compulsory health insurance act may find a place on the November, 1940, state election ballot. For the moment, however, the proposed legislation has come to naught. In future numbers of the OFFICIAL JOURNAL, further comment may be made on the issues involved, since it has been stated that Governor Olson may include this subject in the call for a special session of the Legislature to be held, perhaps, in January, 1940.

\* \* \*

#### (2) Proposed Laws Relating to the State Board of Public Health.

(a) *A.B. 2107*, introduced on January 25, passed the Assembly, and was referred to the Senate on June 3; where, after hearings in two committees, it was tabled by the Committee on Public Health and Quarantine. This measure, little less than vicious, and designed to annihilate the existing State Board of Public Health set-up, is discussed at some length on page 1 in this number. Its background and legislative course are worthy of contemplation from more angles than one. Physicians who desire to orient themselves on law-making procedures will find here an illuminating example of what may take place during a legislative session at Sacramento.

(b) *A.B. 493*. The Prenatal Bill, "providing for the protection of unborn children and the public health by requiring examinations of pregnant or recently delivered women for syphilis, providing penalties for the violation of the provisions thereof," etc., was approved by the Governor on May 9, and is now listed in the code books as Chapter 127, Statutes of 1939.

The text of this measure is printed in full in this issue, on page 71\*. Every licensed doctor of medicine should read the new law. Penalties are provided when its provisions are not complied with by physicians!

(c) *S.B. 173*. The "Premarital Bill,"\* designed "for the protection of unborn children and the public health by providing for premarital examinations for syphilis, and providing penalties," etc., while not a "companion measure" to *A.B. 493*, is a sort of first cousin.

This bill also appears in full in this issue, on page 71. Fail not to acquaint yourself with its pro-

\* For itemized list of proposed laws relating to public health activities, and submitted at the fifty-third annual session of the California Legislature (session of 1939), see CALIFORNIA AND WESTERN MEDICINE, March, 1939, on page 213.

\* For press clipping items concerning the Premarital and Prenatal laws, see in this issue on page 63.

visions, for as with A.B. 493, there are penalties for those who do not observe its stipulations.

\* \* \*

**(3) Proposed Laws Relating to the State Board of Medical Examiners.\***—Under this heading, one is almost at a loss to know how to begin. Several measures, of great significance to physicians who violate the provisions, have already received the Governor's signature, and in ninety days from the date of adjournment of the Legislature (which took place on June 20) will be placed on California's statute books as laws.

(a) *A.B. 1574* adds "Section 382.5 to the Penal Code, relating to dinitrophenol."

This act has been signed by the Governor. The text of the law is not long. He who violates its provisions commits a felony (fine, imprisonment, and loss of licensure!).

Why so severe a penalty was attached to this initial legislation concerning dinitrophenol we do not know. Every physician owes it to himself to read the provisions of this newly enacted law.

It should not be forgotten that the record of conviction for a felony is *prima facie evidence* for citation before the Board of Medical Examiners for revocation of license to practice medicine!

The following is a copy of the text of Assembly Bill 1574:

*The people of the State of California do enact as follows:*

Section 1. Section 382.5 is hereby added to the Penal Code, to read as follows:

382.5. Every person who sells, dispenses, administers or prescribes dinitrophenol for any purpose shall be guilty of a felony, punishable by a fine not less than one thousand dollars nor more than five thousand, or by imprisonment in the State prison for not less than one year, nor more than fourteen years, or by both such fine and imprisonment.

(b) *A.B. 1019*. The comments concerning A.B. 1574, which immediately precede, apply with equal force to A.B. 1019, on the dispensing of "diphenylamine." The text of the law is otherwise the same as that given for A.B. 1574.

(c) *A.B. 449* is "An act to add Section 2175 to the Business and Professions Code, relating to the citizenship of applicants to practice medicine." This act, if it becomes a law through signature by the Governor, will make it impossible for persons who are not citizens of the United States to secure licenses to practice medicine and surgery in California. It was one of the hard-fought measures of the present session, being passed in the Senate on June 19, after coming up from the Assembly, by a vote of 29 to 5.<sup>†</sup>

(d) *S.B. 234*. This act passed both Assembly and Senate, and has been signed by the Governor. It will exempt graduates of approved Canadian medical schools from certain provisions applying to graduates of other foreign medical schools. (A foreign graduate must now show his diploma, received from a medical school approved by his respective country; and a license to practice in the said foreign nation; and he must have served a year

of internship service in an American hospital approved for interne training; and, if the Governor signs the citizenship bill, he must in addition have American citizenship.)

(e) *A.B. 468*. A recent ruling of the Attorney-General of the State of California, based on technical, legal grounds, questioned the right of internes, under certain conditions, to treat the sick. A.B. 468 corrects the technical deficiencies in existing laws.

(f) *A.B. 477*, "relating to unprofessional conduct in the practice of medicine," is an act that passed both Houses of the Legislature. The Governor has attached his signature. It safeguards the use of the prefix "Doctor" or "Dr.," and becomes Chapter 343 of the Statutes of 1939.

(g) *A.B. 469*, "relating to false and untrue statements by persons licensed," etc., becomes a law, as Chapter 342, Statutes of 1939. Provides penalties for making false statements on pension applications, etc.

(h) *S.B. 913*, "relating to the sale of degrees, certificates and transcripts connected with the treatment of the sick or afflicted," has been signed by the Governor, and becomes Chapter 269, Statutes of 1939. Will do away with false diplomas, etc., in certain drugless practitioner and similar schools.

(i) *A.B. 437*, "relating to signs and advertisements in connection with the practice of medicine," would aid in the suppression of fly-by-night, subterfuge health lecture groups and individuals, by whom fees are collected. Passed Assembly and Senate, and was sent to the Governor for consideration.

(j) *A.B. 470*, "relating to peace officers," permits the State Board of Medical Examiners to have additional aid. Has been signed by the Governor.

(k) *A.B. 496*, *A.B. 2315* and *A.B. 478* relate to standards for drugless practitioners, who come under the jurisdiction of the California State Board of Medical Examiners.

\* \* \*

#### **(4) Relating to Cultist Groups Seeking Legal Recognition.**

(a) *A.B. 1203* is "An act regulating the persons engaged in and training for the practice of naturopathy and the schools instructing persons to engage therein."

This is none else than the proposed law to create a Board of Naturopathic Examiners, to license naturopaths, etc., that has been presented to the last several California legislatures, each time with increased backing. Fortunately at this, as in former sessions, the measure was held in committee.

Whether, however, so kindly a fate will always obtain in the future is perhaps a question concerning which more on some other occasion.

\* \* \*

#### **(5) Relating to Separate Board for Examination of Nurses.**

(a) *A.B. 620*, "relating to the practice of professional nursing, nursing schools, and students in schools of learning," is a law providing for a

\* If additional information concerning State Medical Board items is desired, address California State Board of Medical Examiners, 420 State Office Building, Sacramento.

† At the time the copy for these comments goes to the printer, it is not possible to indicate Governor Olson's decisions on some of the measures here discussed.



separate examining board for nurses. Heretofore, nurses were registered by the California State Board of Public Health, through its Bureau of Nursing. The act was approved by both the Assembly and Senate, and on June 22 was signed by the Governor, to become a law in ninety days.

\* \* \*

#### (6) Relating to Hospital and Nonprofit Hospitalization Organizations.

(a) *A.B. 1712*, an amendment to the Insurance Code, "relating to nonprofit hospital service plans," passed both Houses and has been signed by the Governor. It was espoused by the three nonprofit hospital organizations in California, and will permit them jointly to carry forward their work to better advantage.

(b) *A.B. 1727*, "An act relating to hospital records," is another example of undesirable legislation that would have permitted attorneys and others to inspect and transcribe hospital records, etc. It had a justifiable death in committee.

(c) *A.B. 2499*. This measure would have made possible the utilization of county hospital facilities, under proper stipulations, for all citizens of a county; and much work was done in connection with it. The proposed law had the special support of the various farm groups and agencies, but it was not possible to bring it out of committee.

**Concluding Comment.**—If space permitted, many of the proposed laws noted above could have been discussed at length. The presentation here given is intended to acquaint members with some of the major measures.

**Other State Association and Component County Society News.**—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 44.

## EDITORIAL COMMENT†

### CEREBRAL ANOXEMIA AND ITS SEQUELAE

Himwich<sup>1</sup> has pointed out that the probable mechanism of the effect of insulin shock in producing any favorable results in schizophrenia is cerebral anoxemia. It is likely that treatment with metrazol (pentamethylenetetrazol) depends on a similar mechanism. Several studies that have been made on the sequelae and anatomical changes

caused by anoxemia should lead to a very conservative attitude toward any measures of therapy which cause a diminution of oxygen uptake in the brain tissues.

Courville<sup>2</sup> showed that the pathological changes in the brains of patients who have died following nitrous oxid anesthesia are similar to those produced in anoxemia from other causes. In some of his patients, however, death occurred too soon after the anesthetic had been administered to produce the gliosis that he described. Yant et al.,<sup>3</sup> in experimental asphyxia in dogs, found only hyperemia, edema and cellular damage in the brain, when the animals died immediately after exposure to either carbon monoxid or to an atmosphere of low oxygen tension. Proliferative reaction was found in the brains of other dogs which had been exposed to carbon monoxid for thirteen to nineteen hours, and which had lived for sixteen to one hundred and sixty-five days afterward. One must conclude that some of the neuropathological findings in Courville's patients were present at the time of the final physiological insult that caused their death. The neuropathological changes may have resulted from a similar physiological insult earlier in life, such as the asphyxia during birth described by Schreiber,<sup>4</sup> former anesthesia, anemia, exposure to carbon monoxid, chronic pulmonary disease or from other conditions which may have caused anoxemia. Another cause may be the treatment of schizophrenics by "insulin shock."

Judging from the usual preoperative case history taken on surgical patients, it is not generally considered important to question the patient as to incidents in his life which could have resulted in anatomical changes due to asphyxia. This is probably because the actual number of cases reported by Courville and many others is relatively small, compared with the total number of patients given general anesthetics.

Even though one were to attempt to elicit a history of asphyxia from a patient, it would be difficult to be sure that the history was reliable. For this reason a word of warning should be expressed regarding permanent cerebral changes which may result from cerebral anoxemia from any cause.

Physicians who see these patients dying in a state of decerebrate rigidity or, even worse, living as helpless wrecks of human beings, cannot help but be impressed. Undoubtedly, as the number of reported cases increases (and it is increasing) more general attention will be paid to this subject.

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† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

<sup>1</sup> Himwich, H. E., and Fazekas, J. F.: The Effect of Hypoglycemia on the Metabolism of the Brain, *Endocrinology*, 21:800-807, 1937. Himwich, H. E., Bowman, K. M., Fazekas, J. F., and Orenstein, L. L.: Effect of Metrazol Convulsions on Brain Metabolism, *Proc. Soc. Exp. Biol. and Med.*, 37:359-361 (Nov.), 1937.

<sup>2</sup> Courville, C. B.: Asphyxia as a Consequence of Nitrous Anesthesia, *Medicine*, 15:129-245 (May), 1936.

<sup>3</sup> Yant, W. P., Chornyak, J., Schrenk, H. H., Patty, F. A., and Sayers, R. R.: Studies in Asphyxia, United States Treasury Department, Public Health Bulletin, No. 221, pages 1-61 (Aug.), 1934.

<sup>4</sup> Schreiber, F.: Apnea of the Newborn and Associated Cerebral Injuries: A Clinical and Statistical Study, *J. A. M. A.*, 111:1263-1269 (Oct. 1), 1938.

### GLYCIN AND MUSCULAR FATIGUE

What is potentially an epoch-making discovery in nutritional physiology was made about four years ago by Boothby<sup>1</sup> and Wilder<sup>2</sup> of the Mayo Clinic, who found that a daily supplementary feeding, with relatively large doses (15 grams) of glycine, increases muscular strength and skill, and delays the onset of fatigue, as determined by subjective symptoms. Moreover, in their hands supplementary glycine feeding tended to restore wasted muscle tissues in myasthenia gravis and related diseases. This observation is currently confirmed and placed on an objective basis by Ray, Johnson, and Taylor<sup>3</sup> of the Department of Physiology, Long Island College of Medicine.

Since many individuals are unable to take the suggested large doses of glycine without discomfort, the Brooklyn biochemists have given their supplementary amino-acid feeding with foods rich in glycine—commercial gelatin, which contains about 25 per cent glycine, being selected for most of their tests. They found that as much as 30 grams of gelatin can be given in a single dose if suspended in eight ounces of well-chilled orange juice. The mixture, however, must be taken promptly before the gelatin swells appreciably.

In preparation for supplementary amino-acid feeding, six men and four women were maintained for a month on routine diets, and tested daily on an electrically recording bicycle ergometer. The maximal output of work before fatigue sets in was thus determined for each individual during the control month. The ten subjects were then placed on a supplementary gelatin diet, the daily supplementary intake being 60 grams of commercial gelatin for the men (or the equivalent of 15 grams of glycine), and about 50 grams of gelatin for the women.

Under this forced glycine feeding the maximum work output before onset of fatigue increased rapidly in the men, reaching its maximum in about thirty days. This maximum was usually at least twice the amount of work on the pregelatin diet. In one case the maximum was 340 per cent of the initial work output. In contrast with this beneficial effect in men, no appreciable increase in work output was recorded for the women. At the end of about six weeks, the supplementary gelatin diet was discontinued; the men, however, continuing to take the usual supplementary daily ration of orange juice. In all cases the work output before onset of fatigue fell rapidly, and was nearly as low as in the pregelatin period by the end of three weeks.

A theory as to the mechanism of this favorable action of supplementary glycine feeding on muscular efficiency was suggested by earlier investigators. Tripoli and Beard,<sup>4</sup> for example, demonstrated a creatinogenic action of glycine, and a storage of at least part of the resultant creatine in

the muscles. Creatine storage in male muscle has been a recognized phenomenon for over a decade.<sup>5</sup> There is no evidence, however, of appreciable creatine storage in the female. Failure of the four women to respond to the supplementary gelatin diet, therefore, is in line with this previously recognized sex difference.

Whether or not the beneficial effects of supplementary glycine feeding are confined to the skeletal muscles has not yet been determined. If future investigation should show the beneficial effects are shared by the cardiac muscle, or by certain smooth muscle structures, supplementary glycine feeding may in time become of wide clinical interest. Of particular interest would be a study of its effect on immunity mechanisms. A more palatable form of supplementary glycine feeding than that used by the Brooklyn physiologists should not be beyond commercial ingenuity.

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<sup>5</sup> Rose, W. C., Ellis, R. H., and Helming, O. C.: *J. Biol. Chem.*, 77:171, 1928.

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*Diphtheria.*—Just forty years ago diphtheria was so prevalent, so feared, and so contagious that it did not seem an unwarranted procedure for people to cross the street in a wide arc to avoid passing directly in front of the house quarantined with that disease.

Until scientific discoveries revealed the cause and the methods for the cure and control of diphtheria, few diseases had presented such high mortality, or before whose onsets mankind was so helpless. An outbreak of diphtheria in a community caused a shudder of horror. The old records are full of instances where all the children of a family were swept away in spite of what medical knowledge of the time could do.

Thanks, however, to modern researches, there are not few diseases about which so much is known. Its prevention and control are feasible, according to the United States Public Health Service (see "Diphtheria, Its Prevention and Control," Supplement No. 156, Public Health Reports), provided the intelligent coöperation of the sanitary authorities, the medical profession, and the general public is assured.

In the original registration states—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Michigan, Indiana, and the District of Columbia—the diphtheria death rate in 1900 was 40.4 per 100,000 total population. By 1910 it had dropped to 22.5; a decade later, to 17.3. About that time a still more rapid decline began, and the rate in the same group of states was 4.3 in 1930 and 1.3 in 1934. It fell from 3.9, in 1933, the first year such a figure was made, to 2.4 in 1936, for the total continental United States.

"Scientific medicine," according to the United States Public Health Service, "achieved one of its greatest triumphs when it placed in our hands the specific treatment for diphtheria—diphtheria antitoxin. Were it possible to apply this remedy in sufficient dose and early enough in all cases, the mortality from diphtheria would almost vanish. As it is, the disease has been robbed of much of its former terror."

*Self-Protected.*—Few physicians die of tuberculosis despite the fact that they are constantly exposed to it. Knowledge defends them as it may yet defend other groups in the population when properly educated in self-protection.

<sup>1</sup> Boothby, W. M.: *Proc. Mayo Clinic, Staff Meeting*, 9:600, 1934.

<sup>2</sup> Wilder, R. M.: *Ibid.*, 9:608, 1934.

<sup>3</sup> Ray, G. B., Johnson, J. R., and Taylor, M. M.: *Proc. Soc. Exper. Biol. and Med.*, 40:157 (Feb.), 1939.

<sup>4</sup> Tripoli, C. J., and Beard, H. H.: *Southern Med. J.*, 31:662, 1938.



# ORIGINAL ARTICLES

## ON PERIODIC PREPAYMENT PLANS\*

By LOWELL S. GOIN, M. D.  
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A PREPAYMENT plan of medical care is one in which groups of persons or individuals make periodic payments into a pooled fund, from which fund payments for medical care (including hospitalization) may be made when indicated. Such plans, the antithesis of the traditional "fee for service" method of payment, came into existence as the effect of multiple and complex causes. If time permitted, we might trace these causes back to rather remote periods, and we might make out a good case for the argument that the die was cast when capitalism succeeded feudalism—when men exchanged status for contract. The employee, bound by a wage contract with an employer, had to depend on his own resources to stave off misfortune. With the end of feudalism came also the end of personal assistance to be expected from an overlord or from a guild. Great shifts in population occurred; old occupations vanished and new ones appeared; and all of these things, coupled with cyclic periods of production and suspension of commercial activity, are among the fundamental factors responsible for the rise of prepayment plans.

### TRENDS IN OUR OWN TIMES

That the proponents of the necessity for change in our methods of supplying medical care have made fantastic claims is indisputable. So-called economists are quoted as stating that one-third of our people receive no medical care—an obviously ridiculous statement. Harebrained theorists, activated by various motives, some of them fairly pure, have made equally silly statements; but when we have discounted these adequately, there remains a residue of truth. That truth is, in my own opinion, that we are caught up in the grip of powerful social tendencies, apparently irreversible in trend, having their origins in remote and complex causes, and which will overpower us unless we can command them. Nearly one hundred years ago Louis Napoleon said: "March at the head of the ideas of your era, and those ideas will follow you and support you. March in their rear, and they will engulf you. March against them, and they will destroy you."

### MAXIM OF LOUIS NAPOLEON

If I have correctly stated the basic facts concerned; if we can agree on these as premises, then it would seem that we are justified in heeding Louis Napoleon's maxim, and in making our attempt to march at the head of these ideas, lest they destroy us. If we must lay aside the traditional fee-for-service plan of supplying medical care, we shall do so regretfully, not because of economic or financial considerations, but because, under that method we, and those who have gone before us, have provided

medical care with sincere devotion to the ideals of our profession, and with earnest, almost religious zeal for the welfare of our patients. We remember, and we hope that the world will remember, that even this tested and time-honored method was not of our choosing, but was forced upon us by a world in transition to its modern industrial status. If we discard this method, either in whole or in part, we have left, as alternatives, state or public medicine—a plan in which all physicians are paid servants of the State—and the prepayment plans. The first we shall dismiss with our solemn anathema, hoping that we shall not be forced into the necessity of becoming unionized as a last defense against such servitude.

### GROUPING OF PREPAYMENT PLANS

Periodic prepayment plans fall naturally into three groups: those privately conducted; those operated by large groups, such as county or state medical societies, or like groups; and those instituted by the state and established by statute. All are periodic prepayment plans, and all purport to take advantage of the same principle, *e. g.*, the spread of unpredictable individual costs over large groups of people.

It may be argued that none of these are in such a state of perfection as to make them worthy of being our model, and this is true. But it is also true that it has, in the very nature of human reason and conduct, to proceed step by step from the imperfect to the perfect, and that perfection has not yet been attained is not a sure foundation for the thesis that it is unattainable. In establishing truth, said St. Thomas Aquinas, "we are aided by the reception of truths from those who have discovered them, and by our ability to avoid what have been proven errors." We must, therefore, look at what prepayment plans there are and have been, if we are to profit by the knowledge and experience thus gained.

### RECENT SURVEYS BY AMERICAN MEDICAL ASSOCIATION BUREAU OF MEDICAL ECONOMICS

There have been approximately twenty privately conducted plans surveyed by the Bureau of Medical Economics of the American Medical Association. These have been found to be open to certain common objections, partly professional, partly ethical, and partly economic. It is certain that such groups cannot secure subscribers in sufficient number to insure a reasonable degree of success without solicitation. The ethical prohibition of the solicitation of patients was not intended to soothe the vanity or bolster up the dignity of the physician, but, on the contrary, exists for the protection of the patient. Solicitation implies solicitor; and whether that solicitor be the physician himself or his paid agent, it must be clear that the claims of skill, honesty, experience, secret remedy, or what not, would be limited only by the limit of the imagination or unscrupulousness of the solicitor. The sick, untrained in distinguishing between medical ability and outrageous claims, would most certainly be led not to the best doctor, but to the one whose scruples or lack of them permitted him to promise the most.

\* Address given at the third general meeting of the California Medical Association at the sixty-eighth annual session, Del Monte, May 14, 1939.

Solicitation of patients, then, may fairly be classed as an evil, and as a grave objection to any plan which requires it. At this point I propose to diverge for a moment to answer a question that has been raised several times, and even now I can picture some of you as thinking: "Isn't California Physicians' Service going to advertise, and isn't it going to solicit patients?" As Voltaire said, "If we are going to dispute, we must define our terms." Ethics is that branch of knowledge which deals with the relationship of man to man—the science of human conduct. If Dr. A. advertises, he puts to disadvantage Dr. B., who does not; and herein lies the germ of an ethical controversy. But if the California Medical Association advertises, who is injured? How could it be a violation of the ethical prohibition of advertising by a doctor if all the doctors advertised, say the benefits of pneumonia serum? Solicitation, in the meaning of the code of ethics, means the inviting or urging of a person to become the patient of the doctor on whose behalf solicitation is made. California Physicians' Service proposes nothing of the sort. It can have no patients, nor can it practice medicine. It will, no doubt, urge people to become beneficiary members of its corporation so that the corporation can use the pooled funds of its members to pay some doctor chosen by the patient. If this is solicitation of patients, the English language is in a sad state of decay.

#### PLACE OF ALLEGIANCE

But to return to the immediate subject: A physician employed by a private group owes allegiance primarily to his employer, while the whole theory of medical practice contemplates that allegiance as directed toward the patient. It seems inevitable that the physician thus situated must come eventually to regard his profession as a sort of piecemeal to be got through with as expeditiously as possible. Thus is the traditional and very important patient-physician relationship destroyed, to the great disadvantage of the sick and the lowering of the standards of medical care. With the rise of multiple group plans, unfair and even vicious price-cutting is inevitable. If Group A is more successful than Group B, the latter will reduce its rate as an inducement to A's subscribers to join B; Groups C and A must then meet the new rate, and this can and will be continued until the standards of medical service in time, necessitated by the low rates, will be such that the sick public will suffer intensely.

#### TWO MEDICAL SERVICE PLANS

Despite the claimed economy of such plans, the Bureau of Medical Economics found that, while average costs of private practice are between 27 and 34 per cent of gross income, the cost in private group practice is between 40 and 42 per cent of gross income. Economically, professionally, and ethically, then, these plans seem undesirable. There remain two methods of organization and operation of such plans, *e. g.*, that which is set up by statute—compulsory health insurance—and that set up by voluntary organization of large and representative groups of physicians. We have seen both methods proposed simultaneously in this state:

California Physicians' Service and the so-called administration bill for compulsory health insurance.

#### TEN PRINCIPLES ESTABLISHED BY THE AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Although it is likely that you are all quite familiar with the salient points of both proposals, it may be worth while briefly to compare them. A convenient way to do so will be to set up the salient characteristics of each against the ten principles established by the House of Delegates of the American Medical Association.

1. All features of medical service in any method should be under the control of the medical profession. California Physicians' Service offers service under the immediate control of the physician giving it, and such other control as may be required in the hand of physicians elected by physicians. Compulsory health insurance reposes this control in the hands of a group of five laymen.

2. No third party must be permitted to come between the patient and his physician in any medical relation. California Physicians' Service complies with the dictum, but the compulsory plan interposes the politically appointed medical director, the governing authority, and even the advisory council. The second principle also adds that all responsibility for the character of medical service must be borne by the profession—a thing easily realized under our voluntary plan, and one completely unattainable under compulsory health insurance.

3. Patients must have absolute freedom to choose a legally qualified doctor of medicine. Under California Physicians' Service they may do so, when and if the need for medical service arises. Under compulsory health insurance they may do so, too, and include osteopaths, but they must choose in advance of need, and if they do not the state will choose for them. Moreover, if a patient is dissatisfied with his medical attendant under the voluntary method, he may change the attendant with as little ceremony and as easily as he does now; but under compulsory insurance the consent of the authorities is necessary and, if past experience is a proper guide, the patient will be either dead or have recovered before the red tape is even partly unwound.

4. The method of giving the service must retain a permanent confidential relation between patient and physician; and this relation must be the fundamental and dominating feature of any system. The impossibility of fulfilling this requirement under compulsory insurance must be obvious. It may be fulfilled without difficulty under the voluntary method.

5. (In part.) All medical phases of all institutions involved in the medical service should be under professional control. When one considers the plan of diagnostic centers and public hospitals contemplated by the pending legislation, it is perfectly apparent that compliance with this doctrine is completely impossible.

One might diverge here, for a moment, and remark that these ten principles which we are discussing are the considered judgment of the representative physicians of America. They are not



the opinions of self-appointed medical advisors to political groups; nor even the profound thoughts that emanate from the mysterious recesses of the minds of economists. Just the considered judgment of America's representative medical men, whom a plain man might expect to know more about the practice of medicine than even a professor of sociology, or a doctor of law.

6. In whatever way the cost of medical service may be distributed, it should be paid for by the patient in accordance with his income status, and in a manner that is mutually satisfactory.

The voluntary plan offers a method by which this may be done; the compulsory plan makes employer and state contribute to the payment of these costs. The one offers a dignified, self-respecting method of self-help, compatible with our American way of life, while the other takes one more step toward the subjugation of the citizen by the state!

7. Medical service must have no connection with any cash benefit; the voluntary plan, of course, complies absolutely with this rule, but the compulsory plan flatly rejects it. It is curious, incidentally, that it does not seem to occur to the master minds who promote compulsory health insurance that if sickness disability benefits are needed they can easily be supplied by a simple amendment to the Unemployment Reserve Act, and that there is no need to tie them into a system of medical care.

The eighth and ninth rules are reasonably complied with by both plans of prepayment care, and need not be discussed here.

10. There should be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession. With compulsory health insurance administered by the governing authority—apparently the Unemployment Reserves Commission, through a politically appointed medical director and with the advice of an advisory board, consisting of two representatives of employers and three representatives of labor—the impossibility of even remotely approaching compliance with this dictum is apparent, while, under the voluntary method, compliance is complete.

#### IN CONCLUSION

Thus it would seem, assuming that we have stated principles correctly, and have reasoned logically, that social trends beyond our control are inexorably forcing us toward a change in the plan of administering medical care. If we are to discard, however unwillingly, the traditional fee-for-service basis of payment, we must substitute something for it. Our alternatives seem to be public or state medicine on the one hand, and periodic prepayment plans on the other. That all contain objectionable features cannot be denied, but our task is to choose that method containing the smallest number of such objections, and the one whose flexibility is such that we may hope to mold and shape it. The present high plane of medical practice is largely the result of constant supervision of that practice by organized societies of physicians. When professional control of the practice of medicine is destroyed, the result is an impersonal perfunctory service, and the only method we can now see which will prevent this disastrous

result by retaining the necessary supervision is that of the voluntary prepayment plan. Its success, the high standards of medical care, and the satisfaction which you will feel with it, rest in your hands; you are the shapers of its destiny, and, since its destiny and yours are one, of our own.

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#### POLIOMYELITIC INFECTION: ITS BASIC NATURE \*†

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IT is very important that the practitioner should have as clear an idea of the nature of poliomyelitic infection as possible in order that he may properly interpret the clinical signs and symptoms, know what measures are useful in treatment, and know what can and what cannot be accomplished in the way of prevention. Poliomyelitis has long been the subject of confusing and conflicting opinions regarding such fundamental things as the nature of the infecting agent, the manner and route by which it enters the human body, the parts of the body which it infects, and the order in which they are infected. To make matters worse, it is clear today that certain concepts have been so positively propounded by past authorities that they have been learned and accepted by the medical profession as a whole. Unlearning them will require time.

#### FILTERABLE VIRUS

That poliomyelitis is caused by a filterable virus of extremely minute size may now be accepted as proved; and claims that it is due to streptococci or other visible bacteria can be definitely and finally discarded.

The virus has strongly and, perhaps, almost exclusively neurotropic properties. Its natural host is the nerve cell, and it has no known capacity for multiplication in any other type of tissue. It may survive for a time in the nasopharynx, tonsils and cervical lymph nodes, but it has not been recovered with certainty from any other tissues outside of the nervous system in human beings. Even within the central nervous system it shows certain preferences for some types of cells over others. So far, therefore, as present knowledge goes, it is incapable of setting up a generalized or systemic infection; nor does it form a toxin. This point is stressed because, as will be discussed later on, poliomyelitis is frequently referred to as a primary systemic infection with secondary nervous manifestations; which implies that it is blood-borne and reaches the central nervous system through the blood stream. Virus has never been recovered from human blood, and disappears with great rapidity from the blood stream in animals injected intravenously.

There is sound reason for believing that the virus of poliomyelitis, like some other neurotropic

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† Lack of space prevented appearance in this issue of two additional articles in this symposium on Poliomyelitis. See also in this issue, on page 67.

viruses, travels through the axis cylinders of nerves; here and in the main body of the nerve cells it multiplies and progressively infects other nerve axons and cells. Thus, it tends to spread along nerve tracts, rather than along vascular or lymph channels. There is doubtless a considerable escape of virus into the supporting tissues of the central nervous system which sets up a defensive, inflammatory reaction, consisting of hyperemia, fluid exudate, and polymorphonuclear and microglial cells. Foci of such inflammatory reaction in the nervous tissue have been shown by Spielmeyer to be the earliest recognizable reaction in human poliomyelitis; antedating the perivascular and meningeal accumulations of lymphocytes, and the necrosis of nerve cells.

#### MODES OF ENTRANCE

Experimentally, it has been shown that the ways in which the virus can gain entrance into the body and produce infection are of two sorts. The first involves no damage to the body surfaces and, so far as we know, this can occur only at one place—the olfactory mucosa in the upper nasal passages, where nerve fibers lie free on the surface. Such an anatomical arrangement exists only at this place. Every breath that we inspire through the nose has the potentiality of depositing foreign matter on these nerve fibers. Experimentally, the disease can be produced with great regularity when virus is placed in the nasal passages; and that it follows the olfactory fibers, and no others en route to the brain, is proved by its failure to infect when the olfactory bulb is removed. Experimental poliomyelitis produced by the olfactory route is an accurate facsimile of the severer types of the human disease, particularly in the kind and distribution of pathologic lesions. Positive and conclusive proof of the nasal route of entry in man is, and probably always will be wanting, since it would demand a series of observations in persons without olfactory nerves or olfactory bulbs. It is, however, highly suggestive that outside of the central nervous system the only sources from which virus has been recovered in human beings are the nasopharynx or the structures intimately connected by lymph drainage with it—the tonsils and cervical nodes—and the stools, where obviously it may have come from swallowed nasopharyngeal secretions.

Another possible nontraumatic mode of entrance, and one much debated, is through the gastro-intestinal tract. Experimental work has thrown strong light on this problem. It should be pointed out that the rhesus monkey, which is so highly susceptible to poliomyelitis, has a gastro-intestinal tract very similar to that of man. In this animal, in properly conducted experiments, large amounts of highly virulent poliomyelitis virus have been shown repeatedly and regularly to pass through the intestine without causing infection, and to be recoverable in active form from the stools. This point has been amply and repeatedly proved by the careful researches of Clark, Preston and Roberts, and Flexner. Only when, as in simple feeding experiments, the virus has access to the nasopharynx, or when, as in Toomey's experiments, the gut is

grossly traumatized, does infection by the gastro-intestinal route succeed. The fact that in the human disease the lower extremities are most often paralyzed has been used as an argument in favor of the gastro-intestinal route. The argument, however, fails, since in animals inoculated intracerebrally the same thing is true. The fact that virus is often found in the stools in cases of poliomyelitis is, therefore, no indication of gastro-intestinal infection. Indeed, Trask, who has perhaps succeeded more often than anyone else in recovering virus from stools, both in abortive and in paralytic poliomyelitis, believes that its origin is swallowed nasopharyngeal mucus. I suppose that the idea of a primary gastro-intestinal infection was first suggested by the frequent occurrence of so-called gastro-intestinal symptoms at the onset and during the disease, and that there is perhaps a certain superficial reasonableness in the suggestion. When the facts are examined more closely, however, it becomes clear that the only common symptoms of this sort are vomiting and constipation, diarrhea being quite exceptional. Vomiting in a disease which so conspicuously affects the central nervous system should certainly be considered as of nervous origin, particularly when lesions are so frequently found in those areas near the third ventricle and in the medulla, disturbances of which are commonly associated with vomiting. Constipation is certainly not evidence for an inflammatory, irritating lesion of the bowel. Indeed, as Müller has suggested, it may well, like the bladder retention which so often occurs at the same time, be of central origin. Clinical as well as experimental evidence, therefore, fails to supply any valid argument in favor of the gastro-intestinal route. One need hardly consider seriously the possibility that traumatizing, obstructive or ulcerative lesions of the gut play any etiologic rôle of importance.

#### OTHER INFECTION ROUTES

The second way in which poliomyelitis infection can be produced depends on traumatic interruption of the body surfaces, with introduction of virus through a penetrating lesion. Experimentally, animals can be infected by such a method, usually injection, almost anywhere: in the skin, into the eye, into peripheral nerves, into the wall of the intestine, into the peritoneum, into the subarachnoid spaces, and into the brain. Such trauma always involves bringing virus into contact with nerve fibers. Direct injection into the blood stream, it is interesting to note, is usually ineffective unless very large amounts of virus are used. Translating these results into possible ways of human infection, one might think of insect bites, abrasions of the skin, injections of incompletely neutralized virus for purposes of immunization, and introduction of virus incidental to operation on the nose and throat or gastro-intestinal tract in individuals who happened to be harboring virus in these areas. The possibility of insect vection has been considered for many years and, while it doubtless remains open, no direct evidence has been presented in its favor, and no particular insect has been implicated. Poliomyelitis from injections for purposes of immuni-



zation has apparently occurred a few times and has led to the abandonment of the procedure. The disease has a number of times followed adenotonsillectomy, and it is interesting, as an illustration of the characteristic way in which poliomyelitis infection follows nerve channels, that the paralysis in these cases is nearly always bulbar; the virus having clearly followed the cranial nerves supplying the traumatized pharynx up to the pons or medulla. No instances of poliomyelitis occurring after operations on other parts of the body have come to my attention. It is probably wise not to perform adenotonsillectomy during epidemics of poliomyelitis unless operation is urgent.

It is possible that virus might enter the body and produce poliomyelitis through skin abrasions and other superficial trauma. Experimentally, intradermal inoculations are often successful. There are, however, no data favoring such a route of entry in man.

#### COMMENT

Weighing the evidence now available, it seems fair to conclude that, in human poliomyelitis, infection enters the body in the great majority of cases not by trauma, not by way of the gastrointestinal tract, but by way of the nasal passages and, specifically, by way of the olfactory nerves—presumably from droplets or dust in which virus is present.

#### COURSE

The course of infection, after it has entered through the olfactory fibers, can be followed closely in the experimental animal, and there are good reasons for believing that in man it is the same or similar. Two to four days later virus can be found in the olfactory bulbs, but not further. A day or two later it is found in the brain stem, and shortly after that it is first found in the spinal cord. Along this descending pathway, lesions of varying severity can be found: but in general actual destruction of nerve cells is limited to the medulla and spinal cord. In man the distribution and nature of the lesions in cases studied early in the disease are strikingly similar to those in the monkey. The disease is emphatically *not* a simple myelitis; it is an encephalomyelitis. This fact was noted by the earliest observers of the human pathology—Harbitz and Scheel, Wickman, Müller, and others; but because of the accompanying perivascular and meningeal accumulations of small cells and the generalized hyperemia, they concluded that the primary insult was on the vessels and meninges, that the infecting agent first penetrated these structures and, at a later stage, infected the nerve tissue proper. It remained for later investigators, such as Hurst, Spielmeier, and Környey, to show that the reverse is true; that the primary lesions are in the parenchyma of the central nervous system, and that the small-cell infiltrations and hyperemia along the vessels and in the meninges—which, by the way, are responsible for the characteristic alterations of the spinal fluid—are secondary. The concept of an infection attacking and penetrating the blood-brain or choroid-meningeal barrier, must definitely be abandoned, even though it be so in-

grained in our thinking that many clinicians today still refer to the preparalytic phase as systemic or meningeal, and consider the abortive and non-paralytic cases as those in which infection has failed to pass the barrier; hoping, at least, that convalescent serum may prevent the barrier being passed and nerve tissue being infected. The plain fact is that poliomyelitis in every case—abortive, non-paralytic and paralytic alike—is an infection of the nervous tissues. The all-important questions are how far the infection will spread within the central nervous system, and whether the nerve cells will become so heavily infected that some or many of them will die: or, in clinical terms, whether the patient will become paralyzed or die.

It is entirely erroneous to assume that nerve cells infected with poliomyelitis virus necessarily die: in the majority of cases none of them, so far as we can tell, do; and in all but the fatal cases only a relatively small number of them succumb. For, while nerve-cell infection in the average case is extremely widespread, full recovery is the rule for all but a few of the affected elements, and these limited to but a few areas, especially in the spinal cord.

#### CLINICAL RELATIONSHIPS

The fact that poliomyelitic infection, from its beginning, is a parenchymal disease of the central nervous system necessitates a clinical reorientation. It is familiar to every clinician that at the onset there is a complex of symptoms, consisting of fever, vomiting, headache, drowsiness, malaise, general hyperesthesia, sweating, flushing, rapid pulse, ataxia, and so on, which may or may not be followed by paralysis. It has long been customary to regard this group of symptoms as due to general or "systemic" infection, and to consider that during this period the infection has not as yet reached the central nervous system. Since this belief is now untenable, we must seek another explanation for the early symptoms. Such an explanation lies near at hand and is based on the known pathologic changes in the brain stem. The close resemblance of the early stage of poliomyelitis to encephalitis was suggested over twenty years ago by Müller, and I have discussed the subject at some length in another place. We can, I believe, with considerable certainty ascribe the early symptoms to the encephalitis which earlier as well as later investigators (Spielmeier, Stiefler and Schenk, Környey, and Peters) are unanimous in reporting during the earliest days of the disease. The lesions are slight in the cerebral cortex, but conspicuous in the hypothalamus, thalamus, midbrain and medulla, and correspond closely in distribution with those which I have found in the preparalytic period in the monkey after intranasal inoculation. The centers particularly involved are those (in the hypothalamic area) which control or affect the vegetative functions, temperature, sleep, the movements of the gastro-intestinal tract, vascular tone, sweat; also those (in the thalamus) which have to do with the affective state; that is, the general sense of well- or ill-being) as well as the general as opposed to the localized consciousness of sensory stimuli; and

those (in the midbrain) which mediate the balance between antagonistic muscle groups through the cerebellar relay in the red nucleus. Involvement of the substantia reticularis (which runs from the hypothalamic area down to and through the medulla and has to do with autonomic functions) is particularly conspicuous. The symptoms at the onset of poliomyelitis are closely correlated with the regions thus found to be involved in the pathologic process, and the usual absence of cortical signs and symptoms—such as disturbances of consciousness, hemiplegias, paraplegias, and so on—corresponds with the slightness of the pathologic changes in the cerebral cortex.

The character of the changes in the cerebrospinal fluid, and the variability of the time at which they appear, are best explained by an inflammatory process which proceeds from within the central nervous system toward the meningeal surfaces, and sometimes fails to reach the latter. Thus, an increase in cells and globulin often precedes any suggestion of paralysis, and it is as often present in nonparalytic as in paralytic cases of the disease; on the other hand, it may be completely absent or minimal in cases with fully developed and extensive paralysis. There is, indeed, no true meningitis in poliomyelitis, but merely an outpouring here and there of globulin, of lymphocytes, polymorphonuclears and, occasionally, of microglial cells into the pial meshes and subarachnoid spaces from the perivascular channels that lead from the inner parts of the central nervous system to the meningeal surfaces. There is also a rather generalized hyperemia in the substance, as well as on the surfaces, which may be in part responsible for some of the signs and symptoms that simulate meningitis.

#### OTHER PATHOLOGIC CHANGES

We should consider briefly the pathologic changes which are found, rather inconstantly, outside the central nervous system and which have been regarded as evidence of systemic as opposed to nervous tissue involvement. Hyperplasia of lymphoid tissue is perhaps the most frequent of these changes. Clinically, it is inconspicuous and inconstant. And since poliomyelitis virus cannot be found in these tissues except in the cervical glands and tonsils, it cannot be supposed that lymphoid hyperplasia in general is due to the direct action of the infecting agent. It is, therefore, necessary to look for another cause. This, I believe, is readily found in the character of the lesions in the central nervous system where, after the very first stages of the disease, there is a marked and extensive perivascular and submeningeal accumulation of lymphocytes—certainly enough to require of the lymphogenic structures a considerable degree of proliferation. Secondly, there are occasional evidences—small hemorrhages in the stomach and elsewhere, cloudy swelling in liver and other tissues, and so on—which have been attributed to some undefined toxic effect. It must be remembered that death in poliomyelitis results in nearly all cases from respiratory paralysis; that is, from anoxemia, and it seems reason-

able to ascribe the so-called toxic lesions to this simple factor.

Following the initial stage of encephalitis, the infection may follow one or two courses. It may spread downward with greater or less rapidity and severity to infect the spinal cord, or it may die out entirely, the patient recovering without any sign of paralysis or other residual effect. If it spreads down to the spinal cord, it attacks and irritates not only the motor, but also the sensory, and sometimes the sympathetic elements as well; indeed, the sensory and sympathetic involvement commonly precedes the motor. Presumably the posterior ganglia are also involved in most cases. The physical signs and symptoms corresponding with this rather diffuse involvement of the cord are of great importance, especially for diagnostic purposes, and include localized pains, localized hyperesthesia of the skin, localized sweating, pain on flexion of the neck and spine (the so-called spine sign), the positive Kernig sign with pain, and tremor. It is important for us to remember here that these signs do not precede involvement of the central nervous system, but are actually manifestations of it. Curiously enough, such signs are sometimes, though not often, present in cases which do not show later paralysis. Thus, again, there is evidence that infection even in the spinal cord does not necessarily result in destruction of nerve cells with residual paralysis. Finally, as is familiar to us all, the third stage in which early weakness or paralysis indicates loss of function of the anterior horn cells of the cord does not always lead to permanent paralysis.

We have, therefore, a picture of a virus disease which has two outstanding characteristics: first, it is highly specific for nervous tissue; second, it has a striking tendency to die out at any stage and to produce lesions from which the affected tissues can, and frequently do rapidly and spontaneously recover.

#### PRACTICAL INFERENCES

In the light of these considerations, certain important practical inferences should be drawn. First, it is quite fruitless to hope that an early diagnosis followed by any kind of early treatment can prevent infection from invading the central nervous system; infection is already there. Second, it is extremely difficult to evaluate the effects of treatment because of the strong tendency of the disease to end in recovery without residual paralysis, an event which occurs in about 75 per cent of recognizable cases of poliomyelitis, without specific treatment. Third, the only time to prevent poliomyelitis is before the virus has been deposited on the surfaces of the body.

Immunity to poliomyelitis is peculiar; in fact, it has been questioned whether an effective immunity is established by an attack of the disease, and whether the specific antibody found in the blood has any protective powers at all. Second, cases in the same individual have been noted a good many times, and Fischer and Stillerman have even estimated that the incidence of attacks of poliomyelitis in individuals who have had previous attacks is approximately the same as that in individuals in



the same community who have not had previous attacks. Experimentally, it is well established that the specific serum fails to protect animals if it is given at any time, even very shortly after virus has been inoculated. Recently, Harmon and his associates found the specific antibody present in greater than average concentration in the blood of an adult patient before paralysis developed, while the blood of eight out of fourteen patients contained the specific antibody very early in the disease. Such therapeutic series as have been studied by the alternate case method—one given serum and another not—show no significant differences in the incidence of paralysis. Nevertheless, the hope that in individual cases the administration of serum might enhance the natural tendency of infection to recovery, and thus minimize or prevent paralysis, is a natural one to hold and, in man at least, cannot be wholly denied.

If, as seems to be probable, the natural route of entry of the virus is from the nasal mucosa through the olfactory nerves and to the brain, the most logical and, on experimental grounds, the most promising, method of prevention is to block these nerve channels before exposure has occurred, and to keep them blocked so long as the danger or exposure is great—a method which may be of practical value in man. This subject is to be discussed by Doctor Schultz, who has done so much of the basic work on it.<sup>†</sup>

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### EXPERIMENTAL POLIOMYELITIS: SOME BASIC CONTRIBUTIONS TO OUR UNDERSTANDING OF THE HUMAN PROBLEM\*

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IT is established that poliomyelitis is caused by a filter-passing virus. The size of this virus has been measured and found to be close to ten millimicrons, a figure which places it among the smallest of this group of infectious agents. Since poliomyelitis is a virus disease, we may well afford to think and reason about it in terms of what we know today of the basic features of this group of infectious diseases. Viruses and virus diseases have been the subject of extensive investigation during the past two decades, and our knowledge regarding them has now advanced sufficiently that we may speak of properties which are peculiar to all viruses, and to the pathological, immunological, and clinical features which more or less underlie all of the diseases caused by them.

#### FILTER-PASSING VIRUSES AND BACTERIAL MICROBES

To begin with, we should dismiss any lingering conception we may still have that the essential

difference between the filter-passing viruses and bacterial microbes is one of size only. Such a concept is erroneous, for although most filter-passing viruses are considerably smaller than bacteria, this is probably the least important of the differences which exist between these two general groups of infectious agents. A much more fundamental difference lies in the fact that in the viruses we have infectious agents which not only single out given species of plants and animals as hosts, but tend to single out and apparently actually invade certain types of cells within those hosts. They are to be regarded, therefore, as specific cell parasites rather than relatively promiscuous intercellular tissue parasites. As infectious agents they exhibit not only a marked specificity for certain cells within a particular host, but depend on these cells being in their living state. None of the more than a hundred known filter-passing viruses have been propagated outside of the body on lifeless media such as bacteria will usually grow on. Some have been cultivated in artificial cultures of animal tissues, or in intact embryonic tissues such as the chorio-allantois of the developing chick; but while they tend to be less exacting in the presence of less differentiated embryonic tissue, some are highly exacting even under these conditions. The virus of poliomyelitis, for example, has apparently been definitely propagated only in cultures containing nervous tissue from the human embryo. Extranervous tissue from the same embryos, as well as nervous tissue from other animals—embryonic as well as adult—have failed to provide the *parabulum* necessary for its multiplication.

#### VIRUSES AND CELLS

The close relationship of viruses to cells may also be recognized in the histopathology of these diseases, and this largely by virtue of the fact that the primary effects of the virus tends to center in certain special groups of cells. Although these primary effects differ and may range from a rapid degeneration or necrosis (as in the case of the motor-nerve cells in poliomyelitis) to an abnormal stimulation of cell proliferation, such as is seen in certain transmissible tumors of lower animals, or consist of some combination of these, they apparently always involve particular cells of one kind or another. These may be connective tissue cells, epithelial cells, nerve cells, or cells of some other type. While inflammatory reactions are frequently observed, these are usually secondary in character. In many virus diseases the effect produced is frequently associated, and may even be largely limited to the production within those cells of characteristic inclusion bodies, located either in the cytoplasm or in the nucleus. The presence of these bodies naturally adds to the weight of evidence that the changes produced are the result of an actual invasion of the cell by the virus. Added to this may be a highly restricted distribution of the virus within the infected host.

#### STUDIES ON EXPERIMENTAL POLIOMYELITIS

With this introduction, I should like to review briefly certain contributions which studies on ex-

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perimental poliomyelitis have made to our present understanding of the problems which confront us in dealing with the natural disease. In his excellent paper, Doctor Faber has already touched on most of these, but possibly I shall be permitted to emphasize certain of the contributions which, to my mind, have a very particular practical bearing. Foremost among these is the accumulation of evidence that this disease is from the beginning to the end primarily an intraneural infection, and not initially a systemic infection with ultimate localization in the nervous system. There is considerable evidence now to show that virus introduced into the nasal passages invades the central nervous system by way of the olfactory nerve, and normally does so only by this path. There is also considerable evidence that, after it has entered by this route, the virus spreads through the brain and brain stem to the medulla and cord along nervous pathways, probably axonally, presumably as an intracellular infection. This evidence rests in part on histologic observations which indicate that the damage sustained by motor neurons is a primary effect, and not secondary to an intercellular exudation, as was once supposed. It rests in part on the results of sectioning nerve pathways and, finally, on sampling regions of the nervous system and other portions of the body for the presence of virus at intervals during the preparalytic period of the experimental disease.

#### INTERESTING QUESTIONS

A question which naturally arises is, if it is true that virus spreads axonally through the brain and brain stem to the cord, why is there no more obvious symptomatology relating to these higher centers? In other words, why are the cord and medulla singled out primarily, and why do the higher centers so largely escape damage? We know, of course, that the higher centers do not entirely escape the effect of this migration, and Doctor Faber has pointed out that the early symptomatology of this disease does relate in part to these centers. Some studies which we have recently completed<sup>1</sup> seem to show that the less conspicuous effect produced on these higher centers is probably much more definitely related to a greater resistance on the part of the nerve cells in this region than to an absence of or to a low concentration of virus. Our results show that the virus on its way through the brain to the cord may indeed reach high concentrations in at least some of the regions through which it passes, including the olfactory bulbs, thalamus, and hypothalamus; although histologic studies of these particular regions have revealed little if any retrograde changes in the nerve cells themselves. Our observations, therefore, not only support the hypothesis of axonal transmission, but show that the virus of this disease may be handed on by neurons which enjoy a much higher level of resistance to the virus than do the more vulnerable motor-nerve cells in the cord. Even in the cord the virus seems to reach a certain rather high concentration before nerve cells begin to show the marked retrograde changes which characterize this disease. After this concentration is reached, the motor cells suddenly

crumble in large numbers and extensive paralysis follows.

Of some academic interest, in connection with this axonal transmission of the virus, is the question as to exactly how this infinitesimal agent is propagated onward through the nerve fibers. Does the propagation rest on a systematic division of autonomous living bodies which are in some way moved along the nerve fibers, or does it rest on the activity of some kind of nonliving autocatalytic agent, which spreads by a successive action on contiguous nerve protoplasm like flames following a trail of oil? However, I am here to discuss the practical problems which confront us in dealing with this disease.

#### COMMENT

I may launch this consideration by pointing out, first, that our present knowledge of the pathogenesis of this disease helps us to understand why immune serums, even though of high virucidal activity in the test tube, have failed to prove effective in checking the progress of the infection once it is established. For this to be apparent we need to keep in mind that the virus spreads axonally, probably inside of neurons, and that to effect the necessary contact with the virus, antibodies in the plasma must actually enter the infected cells. We know, however, that antibodies are intimately associated with globulin molecules and that these are probably much too large to enter any tissue cell. It would, therefore, appear that the only function which immune serum can exercise is to neutralize such virus as may escape from the confines of already infected cells, and in this way prevent its reaching as yet uninfected cells. That this rôle is not of any great importance seems to be borne out by the results of therapeutic studies, not only in the experimental disease,<sup>2</sup> but in the human disease as well.<sup>3</sup>

The pathogenesis of this disease explains also why immune serum has not proved effective in preventing infection,<sup>4</sup> especially when exposure to virus is by the intranasal route, the only route valid in experimental work, if this is the natural avenue by which infection occurs in man. The use of the intracranial route in testing the resistance of passively immunized animals is incorrect, and misled earlier investigators. If we have the intranasal route in mind, it is easy to understand why serum fails to be effective, even in its prophylactic application. The reason obviously rests on the fact that it probably fails to reach in any large measure the exposed surfaces of the olfactory mucosa and, therefore, fails to guard the olfactory receptors which point freely into the nasal vault. Once the virus has penetrated this natural pathway, it is safely out of the reach of such antibodies as may perchance bathe the exterior of these portal neurons. From then on the story is that already given in explanation of the failure of immune serum to act therapeutically.

#### VACCINES

If it is correct that little reliance can be placed on antisera, even when used prophylactically, what about vaccines? In this, too, the results of experimental work have not supported earlier



hopes.<sup>5</sup> While it is admitted that the extraneural injection of vaccines, especially if they consist of living virus, tends to call forth the appearance of neutralizing antibodies in the blood, they fail to provoke any appreciable increase in resistance to infection by the intranasal route. Here, too, it is necessary, if we want to elicit the true facts, to administer the virus by the intranasal rather than by the intracranial route. By using the intranasal route in testing the resistance of immunized animals, it is possible to eliminate to a large degree the rôle of the serum antibodies already known to be relatively ineffective against virus administered by this route. Experimental observations have revealed that naturally acquired immunity is much less related to the presence of antibodies in the blood plasma than to some change which has been induced in the nerve cells themselves.<sup>6</sup> Apparently, this change, whatever its exact nature may be, does not occur in the absence of an actual invasion by virus. If this is correct, it then seems unlikely that vaccines will ever offer a means of combating this disease unless, perchance, a suitable virus is ultimately found which, introduced into the nares, would effect the necessary invasion of at least these portal neurons, and do this without the risk of inducing the paralytic disease.

#### THE INCEPTION OF CHEMOPROPHYLOSIS

Out of these discouraging results with serums and vaccines the idea was born that possibly some chemical agent might prove effective prophylactically.<sup>7</sup> It was felt that, although a protection so induced might last for only a short time, it might prove to be of at least some help in combating the disease. This possibility was not considered so much from the standpoint that a prophylactic effect might be realized by the virucidal action of a chemical, but rather more from the standpoint that certain chemical agents might act to modify the permeability of the portal of entry itself. Since it was conceivable that such a modification could be effected by stains or by astringents, picric acid, tannic acid, mercurochrome, and alum were among the first agents tested. In due course it became evident that a number of chemical agents, once thoroughly applied to the nasal mucous membranes, markedly decreased susceptibility to later intranasal inoculations with virus. Certain ones, like zinc sulfate, were found to possess this property to a remarkable degree. For example, a single application of a one per cent solution of zinc sulfate will render all or nearly all animals highly resistant against intranasal inoculations with virus made a month later.

What seemed especially encouraging from the practical standpoint was that most of the animals ultimately did become susceptible again. This seemed to indicate that, whatever the mode of action of the chemical might be in conveying this protection, it probably did not depend on a deep-seated permanent damage to the olfactory mechanism. It appeared rather more likely that the protection was due to a relatively superficial impairment involving the dendritic processes of the olfactory cells, and that, as these were restored by

a subsequent regeneration, susceptibility to virus returned. This possibility seemed to be borne out by the histologic examination of several nasal mucosae removed some days after treatment. The appearance of these membranes was not such as to arouse a suspicion that the initial injury had been deep-seated. However, when the opportunity later came to make a systematic histologic study, it became apparent that the action of this particular drug could easily penetrate deeply enough to destroy the cell bodies of the olfactory neurons (olfactory cells) themselves. To observe the real extent of damage, it was necessary to examine the membranes within a day or two after treatment and to direct attention especially to the superior common nasal meati, where the spaces are extremely narrow and able to hold the drug by capillarity for some time. Any retention of the drug would naturally tend to lengthen the duration of its action and, therefore, increase the depth of the injury. There was now no longer any question as to the mechanism responsible for the remarkable protection in monkeys. It could be compared to cutting the olfactory pathway, except that in this instance the interruption had been induced on the nasal side. But the question now arose, why did many of the animals so treated ultimately become susceptible again? Furthermore, to what extent is it possible to limit the depth of injury and still get protection? To answer these questions involved the application of special staining methods in studying the mucosae of treated animals, since routine methods do not enable one to differentiate olfactory cells and their processes from certain other cells present in the membrane and, therefore, convey little more than a general impression of what may have happened. It seemed desirable to determine the exact extent of the damage necessary for protection and, conversely, the degree of restoration associated with a return of susceptibility. A special technical problem arose when we found that the usual neurologic staining methods failed to stain the olfactory cells and fibers as easily as nerve fibers elsewhere. This problem was finally largely solved by modification of a method for staining nerve fibers recently described by Bodian.<sup>8</sup> It now became possible to piece the story together to the extent that new material might become available. This had to come from animals previously treated at varying intervals of time. These studies are now nearing completion and will, we hope, shortly be reported in full. I can only take time to say now that we have evidence that in the monkey the return of susceptibility is associated with at least a partial restoration of olfactory receptors, possibly even of olfactory nerve cells.\*

#### APPLICATION TO MAN

The practical question now before us is, should such a measure be applied to man and, if so, how should it be carried out? To the first part of this question, I want to say that I believe that no one should be subjected to this prophylactic measure

\*Our observations suggest that, in addition to a regeneration of damaged dendrites, there is also some replacement of destroyed olfactory cells. This is now awaiting confirmation by further studies on additional animals.

without understanding fully that there is some risk of inducing a lasting anosmia. Inasmuch as the effect of the drug in almost any concentration down to and including one-tenth of one per cent is likely to be influenced by the anatomic configuration of the nasal passages, as well as by other factors difficult to control, it seems highly improbable to me now that the application of zinc sulfate solution can be controlled sufficiently well to insure both complete freedom from the risk of permanent anosmia and full protection. We already know that a one per cent solution of zinc sulfate does induce a lasting anosmia in some persons,<sup>9</sup> possibly in one or two per cent of those treated, and that adults are more especially prone to such a complication, probably largely for local anatomic reasons.<sup>10</sup> At the same time I am sure that this risk can be reduced considerably by a somewhat more cautious procedure in applying the solution, the principle features of which should be to begin with a much lower concentration of the drug, and to restrict its action by some appropriate means.<sup>11</sup> It is known now that the most effective way to apply a solution to the olfactory area is by instilling it slowly along the nasal sulcus, while the head is being held in the fully inverted position.<sup>12</sup> The same method, therefore, should also facilitate the removal or dilution of the drug by the subsequent introduction of saline solution.

#### PRACTICAL CONSIDERATIONS

From the practical standpoint, it is important to bear in mind that, while we wish to avoid permanent impairment of the sense of smell, the induction of a temporary anosmia is probably necessary to convey protection. By the same line of reasoning, a return of the sense of smell probably means that susceptibility to infection has also returned. To attain just this degree of impairment, but no more, it would seem desirable to proceed from a very low concentration to one which will just induce anosmia (minimal anosmic dose). I should, therefore, suggest starting such a series of treatments with a concentration of the drug as low as, or lower than one-tenth of one per cent, and increasing it in subsequent treatments, administered at intervals of two or three days, by not more than 0.1 per cent, until an anosmia, as determined by a dependable method, has been induced. Until we have a more extensive background of experience, drawn from observations on man himself, it will not be possible to say how much this more cautious approach may be exceeded. Whatever steps can be taken to eliminate the risk of a lasting anosmia, it will not be easy to determine the prophylactic effectiveness of such a measure, and it may require many years before its actual practical value in man can be determined. Obviously, studies as these should not end with zinc sulfate and are, in fact, being continued with the hope that something may eventually be found which will prove less irritating and less hazardous to the sense of smell.

#### SPECIFIC THERAPY

Regarding specific therapy during the acute stage of the disease, nothing constructive has as yet emerged from the experimental laboratory. How-

ever, studies are now in progress to determine whether the experimental disease can be made to yield to some specific chemical agent, either by virtue of a direct action on the virus or by virtue of a helpful physiologic action on the infected host. The results of such investigations cannot yet be predicted.

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#### POLIOMYELITIS\*

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THE importance of the poliomyelitis problem and its intensive study justifies an attempt to correlate the acquired data, particularly concerning (1) the carrier; (2) the criteria for early diagnosis, with recognition of the nonparalytic case; and (3) the evaluation of spinal-fluid findings.

#### ETIOLOGY

Most epidemiologists agree that control could be effected were rapid identification and isolation of the carrier possible. Unfortunately, this depends on some as yet undiscovered chemical, serological, or other method of virus identification more applicable than the present slow, uncertain, or cumbersome biologic tests. Rosenow's<sup>1</sup> streptococcus, morphologically and cataphoretically identified, seems to fulfill Koch's postulates; and Eberson and Mossman's<sup>2</sup> culture of a microscopically visible, biologically identified, organism likewise seems convincing, but the probable existence of extrinsic factors remains.

The Swedish Commission's<sup>3</sup> report is replete with significant data. These scientists showed, first,

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that the virus is relatively large and frequently will not pass the ordinary Berkfeld-W candle filter in amounts sufficient to effect successful monkey inoculation with a reasonable volume of material; and, second, that the *Macacus cynomolgus* monkey is much more susceptible than the commonly used *Macacus rhesus*. They repeatedly demonstrated virulent virus in small-volume washings from intestinal mucosae of convalescents, in some instances many months after clinical recovery. Because their work was done early in the experimental investigation of the disease, and they did not realize the importance of demonstrating the pathologic lesion known as neuronophagia in all instances, their work has been somewhat discredited. In the light of ensuing and more recent investigation, it is beginning once more to assume its proper importance. Very recently Trask, Paul, and Vignec<sup>4</sup> recovered virus from the human stool, and Osgood and Lucas report carriers as long as two years after clinical recovery. This possibly explains the frequency of relapse<sup>5</sup>—by autoreinfection during periods of diminished acquired immunity—and assists in clarifying the morbidity among certain groups of hospital personnel reported in the Los Angeles epidemic<sup>5</sup> of 1934.

That convalescents constitute a prolific carrier source seems a logical hypothesis. The nonparalytic (abortive) case is, likewise, dangerous, for its rapid recovery is evidence of adequate immunogenic response. This was proved serologically by Howitt,<sup>6</sup> when she demonstrated higher antiviral properties in serum from spontaneous convalescents; and in a striking fashion clinically by Clauss Jensen,<sup>7</sup> when he used serum from abortive cases and recent convalescents with remarkable therapeutic success.

The atrium, by which virus reaches the central nervous system, is by no means a closed question. The olfactory pathway is considered the common avenue, and Schultz and Gebhardt<sup>8</sup> have proved that it is at least one portal. They sectioned the olfactory nerves of monkeys; then failed to infect them with intranasal implants of virus, subsequently proved potent by intracerebral inoculation. However, unsuccessful nasal implantation loses much significance when it is remembered that in nature poliomyelitis is limited to the human host, and infection of animals by contact methods is always difficult. In fact, Harmon, Shaughnessy and Gordon,<sup>9</sup> and many others have failed to produce a clinical picture of poliomyelitis simulating that in the human, with recovery of the virus, in any animal except monkey, and in the latter nasal infection is usually very difficult. The suggested existence of a virus neutralizing substance in the nasal mucosa<sup>10,11</sup> seems improbable in view of the recovery of unneutralized virus in nasal washings from monkeys infected by other routes. It seems logical to deduce that the nasal barrier is mechanical and that these membranes can constitute an *efferent* avenue for egress of virus, as well as a probable *afferent* portal for its entry.

That the gastro-intestinal tract may be a common atrium of infection in man is the contention of many observers. The cumulative evidence of in-

volvement of all reticulo-endothelial tissues in the early, systemic phase of the disease, and the uniform and marked changes in the splanchnic lymphatics seem to incriminate the gastro-intestinal tract. Much of the brilliant work of the Swedish investigators<sup>3</sup> was by intraperitoneal and sciatic nerve injection of small amounts of filtrate from rectal washings of patients, and the virus thus obtained was identical with that found in the nasal mucosae. Toomey,<sup>12</sup> after extensive investigation, including cord transection,<sup>13</sup> quite logically considers the perineural lymphatics, or nerve sheaths of the sympathetics, as a probable atrium to the central nervous system. Intraperitoneal injection suggests also an indirect approach through the general lymphatic channels. Brodie and Elvidge<sup>14</sup> failed to substantiate Toomey's results; but Landon and Smith<sup>15</sup> reporting the largest recorded series of human autopsies (ninety-six), concur in the opinion that the gastro-intestinal tract is a probable atrium of infection in man.

Clinically, we have seen many cases with early gastro-intestinal symptoms; secondary involvement of the lower extremities; and a complete absence of respiratory manifestations. The inference is obvious.

Another potential method of infection is through breaks in the skin. In our hospital, Kessel has repeatedly produced experimental poliomyelitis in monkeys by intradermal injections of minute quantities of one strain of poliomyelitic virus.

Considering the above factors in virus dissemination, it would seem advisable ultimately to require reasonable proof of noninfectiousness as a criterion for release from quarantine. The absurdity of releasing diphtheria or typhoid patients after a fixed quarantine period, and regardless of bacteriologic findings, is obvious, and the analogy in the case of poliomyelitis is evident.

#### PATHOLOGY

A brief review of the demonstrable pathology of poliomyelitis may explain certain apparent clinical discrepancies. Landon and Smith<sup>15</sup> call attention to the hyperemia and perivascular round-cell infiltration; capillary thrombi; infarction and necrosis in liver, spleen, Peyer's patches, tonsils, thymus, heart, and endocrine glands. The thymus is more consistently enlarged as a pathologic entity in this disease than in any other known condition, except status thymicolymphaticus. Peyer's patches resemble the condition seen during the first week of typhoid fever. Our Swedish colleagues,<sup>3</sup> and Burrows,<sup>16</sup> have called attention to the generalized lymphatic hyperplasia. While the poliomyelitic virus has *known* neurotropic propensities, *it is also evident that it produces a systemic infection*. This explains the early clinical picture of generalized toxemia.

Meningeal exudate was shown by Landon and Smith<sup>15</sup> to be present only in 70 per cent of their ninety-six autopsied cases. Our own and other observations are corroborative. The pathology of poliomyelitis is not primarily involvement of the meninges, or of the choroid; hence the frequent paucity of cells in the spinal fluid is no enigma. The

earliest evidence of nervous system involvement is frequently periradicular infiltration and pia-rachnoid engorgement, hence it is difficult to understand why the profession at large is so reluctant to consider anything short of demonstrable paralysis as constituting clinical poliomyelitis; or why, in the face of a clean-cut clinical picture, such undue importance is attached solely to spinal-fluid findings in all cases.

Microscopic study of the central nervous system in poliomyelitis discloses facts quite at variance with the general anatomical-clinical concept. In autopsied cases, instead of lesions being localized solely to the anterior horn cells which innervate the clinically affected muscles, these areas of inflammation extend diffusely throughout the midbrain, basal ganglia, pons, medulla and cord, varying only in degree. To what extent this is true in milder cases is conjectural, but the parallelism should hold proportionately.

Two main features are noted in the motor cells: (1) early death without degeneration, but with demonstrable microscopic changes; and (2) late neuronophagia, the replacement of the degenerated cell by microglia, the essential scavengers of the central nervous system. There is also a diffuse interstitial infiltration by these Hortega<sup>17</sup> cells (microglia) throughout the cord, including the lateral and posterior horns and the fasciculi; in very severe cases actual necrosis occurs. Perivascular round-cell infiltration is also present, while edema of the cord is more marked than in the brain, but degeneration appears to be independently related to the direct action of the virus on individual cells.

Considering the clinical severity of cases coming to autopsy, the gross pathology seems remarkably slight.

#### EARLY DIAGNOSIS

Early diagnosis, and particularly the recognition of nonparalytic (abortive) cases, is important if early therapy, isolation, and carrier detection are to be effected. The early toxemia simulates that of other acute infections; hence, justifiable diagnostic errors are common. One may not ignore, or fail to elicit, the finer points in differential diagnosis.

During the stage of invasion, the fever, headache, generalized muscle pains and tenderness, hyperesthesia and varying degrees of gastro-intestinal disturbance are similar to many infectious diseases. While constipation is usually mentioned, frequently we have observed an early and marked diarrhea. Even some degree of meningism is not uncommon, and the characteristic headache of poliomyelitis is not pathognomonic—though very significant in little children. Upper respiratory infections involving any of the perinasal sinuses, or the peripheral nerves, may cause similar pains in the frontal region; and meningism, when present, may produce cellular changes in the spinal fluid quite as marked as those of poliomyelitis. However, poliomyelitis is notoriously likely to produce *clinical* findings referable to isolated groups of nerve cells despite the diffuse pathology noted at *autopsy*. *This tendency to produce localized clinical findings is the*

*key to early diagnosis*. Poliomyelitis very early shows isolated muscle tenderness, isolated muscle weakness, asymmetry of reflexes, or rapidly changing reflexes. Early, for some unexplained reason, it is common to find an absence of the superficial reflexes, those of the deep tendons being often exaggerated during the irritative, invasion stage. Later, asymmetry or absence of the deep reflexes occurs, if the case progresses. The spine sign, Brudzinski, and Kernig may become present.

The spinal fluid may show no changes at any time, particularly in nonparalytic (abortive) cases, although the abnormally high antiviral titer of the serum of these individuals, as shown by Howitt<sup>6</sup> and Jensen,<sup>7</sup> furnishes the needed final proof of their infection with poliomyelitic virus.

The late findings in poliomyelitis are so well known that we will mention only the more remote sequelae.<sup>5</sup> Emotionalism, lack of acuteness of attention and decreased power of concentration are the most common encephalitic phenomena. Parkinsonian syndrome occurs rarely. Localized hirsutism, changes in pigmentation, localized hyperhidrosis, etc., have also been mentioned,<sup>5</sup> and clinically confirm Toomey's<sup>12</sup> hypothesis of sympathetic nervous system invasion. Involvement of the endocrine system is also definitely indicated, and in some cases becomes severe.

In a number of cases occurring since May, 1934, and of several years' duration, we have observed recurrent attacks of purpura at relatively frequent intervals. We have found no mention of this phenomenon in the literature. Usually accompanying these purpuric episodes are headache, one or two degrees of fever, return of muscle tenderness and pain, and a temporarily diminished muscle strength as demonstrated by checking affected groups. Macules vary from a pinhead to a split-pea size.

#### SPINAL FLUID IN POLIOMYELITIS

The frequent absence of an increased spinal fluid cell count has been discussed.

Following the 1930 epidemic in Los Angeles,<sup>18</sup> we reported an absence of cellular changes in the spinal fluid in 12.6 per cent of clinically proved cases of poliomyelitis. Skeptics cast doubt on this finding.

Following the 1934 epidemic in Los Angeles, we reported<sup>4</sup> similar findings in approximately 33 per cent of 1,800 cases. In the same year Clauss Jensen<sup>7</sup> reported no spinal fluid change in 36.1 per cent of 3,340 cases seen in Denmark. Landon and Smith,<sup>15</sup> Brahdy and Lenarsky,<sup>19</sup> Brodie and Wortis,<sup>20</sup> and others, also admit similar findings occasionally. With these corroborative reports, and our additional experiences in a larger epidemic, we feel fully vindicated concerning the original contention that, at the present time, one must be prepared to diagnose poliomyelitis from the history and physical findings, *in the absence of cellular changes in the spinal fluid*. We cannot concur with Herrick's<sup>21</sup> statement to the effect that during an epidemic the final diagnosis depends entirely on the spinal fluid. The above references to negative spinal fluids in clinically proved cases, to autopsy findings, and to the recovery of virus in respiratory



or intestinal washings from nonparalytic (abortive) cases seem adequate proof to the contrary. The pathology of poliomyelitis usually does not include primary meningeal or choroid involvement, and any increased spinal fluid cell count is only an index of subsequent meningeal invasion; absent in at least 30 per cent of autopsied cases.

#### DIAGNOSIS

Early direct diagnosis of the nonparalytic case has been considered above, and the paresis or paralysis occurring later needs no discussion. Differential diagnosis at times must include practically all acute infections, particularly those of the respiratory or gastro-intestinal tracts showing initial toxemia. The list is too long to reiterate. In 1935,<sup>5</sup> we mentioned fifty-seven different conditions misdiagnosed as poliomyelitis, many of them justifiably. In addition, the list now includes one case each of tetany, trichiniasis, encephalomyelitis from neoarsphenamin, acute lead poisoning, and septic cerebral embolus in a child suffering from acute bronchopneumonia. Practically all conditions of the central nervous system may require differential diagnosis.

#### TREATMENT

Prophylactically, we maintain a conservative attitude. The vaccines of Brodie<sup>22</sup> and Kolmer<sup>23</sup> are similar to those of Levaditi and Landsteiner,<sup>24</sup> which were shown to be inert in the one case and dangerous in the other. One of our fatal cases was a man "immunized" less than one month previously. Another less severe case was a nurse similarly "immunized" six months before. At the present time we believe that the hazards of vaccination are minimal but actual, and that its benefits are still debatable. We have in the past used nonspecific autohemotherapy on the hypothesis that immunity depends largely on reticulo-endothelial response, and that the autolysis of whole blood may constitute a normal biologic stimulant. We have no convincing data, but believe that Waltner's<sup>25</sup> controlled series is significant. We are not overenthusiastic about passive immunization, although we are inclined to agree with the statement Kolmer made in 1938 at the annual convention of the American College of Physicians, that injection of high titer convalescent serum is probably the best medium we possess at present. Improperly controlled, all immunization programs may be actually dangerous, and the truth lies in the future.

Nasal sprays are still experimental and seem to offer little more than doubtful, transient protection: they endanger the olfactory nerve, and may destroy it at times.

Serum therapy is still a disputed question. Again we cite the very general agreement of laboratory workers concerning the *in vitro* and *in vivo* antiviral properties of convalescent serum. Our statistics<sup>18</sup> on the 1930 epidemic seem most significant, the serum-treated hospital cases showing 3.2 per cent mortality as against 7.6 per cent for the entire county during the same epidemic. However, other observers fail to show such a difference, and our results with serum were much less striking in the 1934 epidemic. We may have been dealing with different strains of virus, such being known to exist,

and probably a great deal of the serum used possessed no protective properties.<sup>26</sup> Jensen's series<sup>7</sup> is a strong argument in favor of serum therapy. Following his lead, at the present time all serum prepared at the serum depot in the Children's Hospital in Los Angeles is pedigreed, that which will not prevent infection in monkeys being discarded.

The method of administration is also debatable. It would seem logical to replace serum in its own element, intravenously; particularly in view of the recognized systemic phase of the disease and the rapidity of distribution offered by this route. Intramuscular injection allows of slower absorption over a longer interval. Intrathecal administration by lumbar or cisternal routes is still more debatable. Theoretically, little good should be expected; yet in 1930, after instituting cisternal administration, we lost few of the relatively large number of cases showing clinical involvement high in the central nervous system: prior to adopting the procedure most of these patients were dying. The immediate amelioration of symptoms following intrathecal puncture may be hydrostatic, relieving perineural edema by shifting the osmotic balance between the capillary circulation and the spinal fluid.

Immunotransfusion<sup>27</sup> offers dual possibilities because it combines antiviral specificity with the known beneficial effects of hemotherapy. Where proved donors are available, we prefer it. Results are occasionally very spectacular.

A series of cases treated with intravenous hypertonic dextrose—10 per cent in normal saline<sup>5</sup>—showed decided merit for this therapy. Autopsies on dextrose-treated patients have shown occasional capillary thrombi, but the value of this therapeutic agent in mobilizing reticulo-endothelial defenses, promoting renal elimination, and stimulating hepatic function—detoxication, glycogenesis, antiketogenic glycogenolysis—is too well established to be discredited.

Retan<sup>28</sup> successfully used hypotonic solutions intravenously, with frequent withdrawal of excess spinal fluid. We have not tried his method in this disease. The question of hyper- or hypotonic solutions is only one of osmosis, with attempted washing of virus in different directions and utilization of different escapes.

Based upon the work of Meltzer,<sup>29</sup> 0.5 to 1.0 cubic centimeter of 1:1000 solution of epinephrin hydrochlorid was given intraspinally by Hoyne<sup>30</sup> in 1916 with apparently good results. We have had no experience with the procedure. The ephedrin treatment later advocated by Royle,<sup>31</sup> on the basis of reducing destructive edema by facilitating capillary circulation, has not been tried in a large controlled series. Courville, in Los Angeles, suggested its use independently in 1934, but the exigencies of the epidemic prevented running a controlled series. It was tried in a few cases without obvious benefit.

#### SUMMARY AND CONCLUSIONS

Evidence is herewith presented to show that:

1. Carriers of poliomyelitic virus definitely exist, and are important factors in the dissemination and control of poliomyelitis.

2. Sera from recent, rapidly convalescent and non-paralytic patients show high antiviral titers: these individuals are most prolific sources of carriers.

3. Human vectors harbor the virus in their intestinal and respiratory tracts.

4. Identification of virus, and hence detection of carriers, is by means of time-consuming, expensive and difficult biological tests, and is uncertain at present.

5. Proof of noninfectiousness ultimately must be the criterion for release from quarantine.

6. Studies in pathology show that (a) poliomyelitis is a systemic disease primarily, and a central nervous system disease secondarily; (b) the systemic phase usually precedes or accompanies the central nervous system phase, which may be absent altogether; (c) the nervous lesions are diffuse below the midbrain, in spite of apparent clinical localizations; (d) the degree of pathologic change in the central nervous system does not parallel the clinical picture; (e) the meningeal involvement is only commensurate with the degree of systemic infection, and may be absent entirely; (f) cellular changes in the spinal fluid are proportional to the degree of meningitis present; and (g) the spinal fluid cell count may remain entirely normal and unchanged.

7. Diagnosis in many instances does not depend on spinal fluid corroboration.

8. Recognition of the nonparalytic case is possible and most desirable, as this individual is a latent source of potential infection.

9. Present prophylactic vaccines offer encouragement, but no convincing proof of immunity, and Kolmer admits the morbidity is greater in the vaccinated group than in the unvaccinated population.

10. Immunotransfusion is recommended early in severe cases.

11. Convalescent serum by all routes has proved beneficial in our experience.

12. Hypertonic dextrose in normal saline intravenously has proved advantageous in the systemic phase of the disease, and Retan believes the hypotonic solution saves lives in the paralytic group when given by his method.

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#### POLIOMYELITIS: ITS TREATMENT\*

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THE treatment of poliomyelitis is an ungrateful subject for discussion, for it has taken us many years to appreciate the importance of a few measures, proved useful, essential to the proper care of the patient. These measures are so few and so simple that a discussion of treatment should best reiterate and reemphasize them. A vast amount of scientific study of this disease has been productive of a pathetic paucity of information regarding specific curative efforts which can serve as basis only for speculation as to the future of treatment.

We may properly divide our discussion into three phases: (1) the essentials of management of the typical attack apart from paralytic manifestations; (2) the treatment of the various forms of muscular

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weakness and their attendant complications; and (3) a brief consideration of the theory and application of specific therapy.

#### EARLY DIAGNOSIS IMPORTANT

Early diagnosis is an important function of proper treatment. Often this diagnosis is based on little more than a sound clinical impression which is induced, prior to the appearance of paralysis, by the summation of a number of factors which may include the prevalence of an epidemic, a history of exposure, and the presence of illness and prostration to a greatly varying degree, and accompanied by any or all of the systemic manifestations of an attack. Of prime importance in the examination of the patient are tremulousness, fatigability and the presence of neck and back stiffness, which are usually not extremely marked and are limited to the last few degrees of flexion of the head on the chest. Examination of the spinal fluid necessitates a certain amount of trauma to the patient, but this may be minimized by skillful performance of puncture, and is justified by the fact that the evidence thus secured usually quickly establishes or disproves the diagnosis. It is quite rare for the spinal fluid to be normal in the presence of suspicious clinical symptoms in a case in which it is ever possible conclusively to establish the diagnosis—although exceptions to this rule do occur.

#### EARLY PROCEDURES IN TREATMENT

In the early stage of infection, when the available evidence supports the probability of the diagnosis, certain measures should always be promptly instituted. The patient should be carefully isolated for the protection of the community. The communicability is low; but the disease almost certainly spreads through contact, and it can hardly be doubted that contagiousness is greater at the onset than at any subsequent time. The patient should be placed under conditions which absolutely protect him from muscular and nervous fatigue; he should be made as comfortable as possible and should be subjected to the minimum of examination necessary to observe his progress. Fatigue is an important matter in increasing susceptibility to the disease, and its avoidance in the early stage of the infection best serves to cut down the extent of subsequent paralytic development. Whatever may be expected from specific therapy can best be secured only at this time.

As the disease progresses, the onset of paralysis may be most insidious, and is overlooked with surprising frequency. It is good practice to anticipate common forms of weakness by providing some support for the arms and feet. The arms may be supported on pillows in a position of abduction and slight external rotation, which spares the deltoids and the rotators of the arm. The feet may be supported with pillows or sand bags as partial protection against the insidious development of foot drop.

The patient should be handled in a gentle manner, and every effort made to dispel his fear—which is sometimes difficult—and to minimize his activity. General care is similar to that applied to the common, mild acute infections; diet and elimination present no great problem and, in these early

preparalytic cases, restlessness and irritability are seldom difficult to control. All accounts of modern epidemics indicate that, with the application of only these simple measures, one need not expect a high incidence of paralytic or fatal sequelae, and that, as our efforts increase in detecting the disease early and treating it thus simply, we may expect the prognosis steadily to improve.

#### TREATMENT OF PARALYSIS

In the majority of cases typical weakness of skeletal muscles, if evident at all, appears on the third or fourth day of the fever, although occasionally it puts in its appearance after a prolonged febrile course. In only one form of the disease does paralysis characteristically come early, and this is the so-called bulbar (actually bulbo-pontine) form in which weakness of the muscles supplied by the cranial nerves may be detected almost at the onset of the fever. Involvement of the muscles of the eye, the face, of mastication, of swallowing and phonation, should always be sought for and promptly recognized. These signs indicate a form of the infection most immediately dangerous to life; but with the best prognosis for complete recovery if survival occurs. The diagnosis may frequently be made through the observation of a collection of saliva in the back of the throat, which indicates the inability of the patient to swallow. Serious progression may rapidly ensue, and a considerable proportion of poliomyelitis deaths are caused by central respiratory failure, which amounts to a complete disorganization of respiratory function. This central type of respiratory failure is amenable only to a very small extent to the use of the respirator; the patient breathes irregularly, adapts himself poorly to the rhythm of the machine, is unable to free his air passages from secretion; and aspiration pneumonia frequently complicates the picture. Respiratory stimulants are, naturally, of little avail. With evident involvement of swallowing and respiration, the patient should be placed on his face, the foot of the bed elevated, and suction should be used to clear the air passages. This patient should not be fed by gavage during the active course, but should be supported by the parenteral administration of fluids and dextrose. When failure of respiration impends, the respirator should be tried; it may even be justifiable to suppress the patient's incoordinated respiratory efforts, hiccoughs, etc., by the use of fairly large doses of morphin, while the use of the machine is being instituted. Usually, the course of cranial-nerve paralysis is short: death quickly ensues or the patient speedily recovers function to a considerable degree. When cranial nerve involvement is accompanied by skeletal involvement, the latter should also be appropriately dealt with.

*Skeletal Muscle Weakness.*—The appearance of skeletal muscle weakness should be carefully sought during the active stage of the disease. Adequate examinations can be conducted daily with a minimum of disturbance. The detection of actual muscle weakness is of far greater importance than meticulous examination of the reflexes. As soon as there is the slightest amount of muscle weakness the involved extremity should be supported at rest in a

position which protects the damaged function from the effects of gravity and the pull of opposing muscles. Temporarily, during the early stage, the arms may be supported by means of pillows or slings attached to the head of the bed. The legs may be temporarily supported by sand bags or pillows. The muscles of the trunk require only the recumbent posture during the early stage. It is of extreme importance that these measures of support be instituted at the earliest possible moment. Despite all that has been said about this matter, slight muscle weakness all too frequently goes unrecognized or persists untreated until the end of the quarantine period, with immeasurable harm to the ultimate prognosis. Make-shift methods, sand bags, pillows, and slings should quickly be superseded by methods of support of better design. Many of the orthopedists prefer lightweight splints because of the ease with which they can be applied or removed. My own preference is for very lightweight plaster casts, which can quickly be abbreviated to a half shell and, while lacking the advantage of easy application, have at the same time the advantage that they are not apt so frequently to be removed. These measures for support do not demand superior skill although, if the orthopedist is to assume the later care of the patient, he should properly be consulted at an early stage so that the patient may receive the advantage of continuity of treatment.

*Pain.*—Pain is a common concomitant of the paralytic stage and its relief is difficult. Barbiturates are not conspicuously successful and narcotics are to be avoided. The application of heat, in any manner, is productive of increased comfort, and radiant heat is especially helpful. Sedation is best secured by trial of a variety of agents, including hypnotics, sedatives, and narcotics; and paraldehyde given by mouth or by rectum is very helpful.

*Respiratory Weakness.*—Respiratory weakness is frequently referred to as bulbar paralysis, but this term is often erroneously applied, inasmuch as the common form of respiratory involvement concerns the innervation of the intercostal muscles and the diaphragm, and is less likely to be due to central involvement. When there is involvement of one or both shoulder girdles, respiratory weakness should expectantly be watched for. This may develop most insidiously; there is a gradual diminution of chest excursion and increasing loss of ability to maintain the expansion of the chest against the pull of the diaphragm. Evident respiratory distress is usually lacking, although the patient shows increasing anxiety; the increased activity of the diaphragm leads to progressive diaphragmatic fatigue which may terminate abruptly with cessation of breathing. These typical cases respond well to the action of the respirator; the patient should be placed in the machine early, before there is complete failure, to become, usually, immediately comfortable. The machine simulates closely the physiology of breathing, and acts to some extent like a splint in that it spares the damaged respiratory muscles over fatigue. The respirator can maintain function only as a temporary expedient until subsidence of active disease permits restoration of all or part of the damaged respiratory function,

which occurs in a surprising proportion of cases. That function does not invariably return is no fault of the method; the minority of cases in which normal respiration is not resumed to some extent, and in which the respirator simply prolongs a miserable existence, is an unfortunate occurrence which is compensated for by many in which this function does return and the patient finally enjoys restoration to a useful existence. It is almost obligatory that the patient in the respirator be handled by those adequately skilled in its operation, and the coöperation of a skilled team should always be developed for this purpose. It is more than a trick to be able to place the patient in the machine deftly and to care for his wants, nutrition, prevention of decubitus, elimination, etc., while he is totally dependent on his attendants.

*Bladder and Bowel Weakness.*—Bladder and bowel weakness commonly accompany weakness of the muscles of the lower abdomen and back, and unless adequate precautions are taken to prevent it, difficult defecation will be complicated by the accumulation of masses of impacted feces which are difficult to remove. Catharsis is less helpful than the use of lubricants, supplemented by gentle flushing and enemas of the lower bowel. Bladder weakness, formerly believed to be unusual in poliomyelitis, is not uncommon. Opinion is divided whether these patients should be catheterized or permitted reflex emptying; but, despite the danger of bladder infection (which commonly supervenes), it is usually better, in my opinion, to employ catheterization to relieve distention. As a rule, bladder function quickly returns, usually within a week after defervescence.

#### COMMENT

All of the useful methods of the acute stage should be continuously employed, and three to six weeks after onset a slow return to activity and painstaking reëducation of damaged function should be started. This should be carried out under the best orthopedic and physiotherapeutic supervision obtainable, and should proceed on the basis of an accurate estimate of muscle function with an appropriately planned program. The final outcome is almost invariably better than the condition at the height of the disease, and slow improvement may be expected under proper care for one, two, or three years. Physiotherapy in the pool is of great advantage, despite the fact that it is popularly overrated. Its chief value is that of permitting muscular activity without weight bearing, thus facilitating reëducation of damaged, but not destroyed, function. There should be no hard and fast rule about the time for substitution of surgical procedures for conservative treatment; when weakness does not cause deformity and impairment of surviving function, conservative measures may be hopefully continued for a long time; but where persistent weakness leads to severe and intractable deformity, as in involvement of back and trunk muscles, it may be advisable to intervene surgically very early.

The proved essentials of the treatment of poliomyelitis depend on simple principles which should be recognized by all practitioners; their proper employment taxes the art of medicine to the extreme. Final prognosis is best served by an early



diagnosis, a persistent application of simple orthopedic procedures for protection against deformity and disability, and the patient persistence in re-education and rehabilitation of the patient, which must include an effort to maintain in every way his morale and coöperation.

#### SPECIFIC THERAPY

Very little need be said about specific therapy, which is highly controversial and mostly experimental in nature. There have been advocates of many forms of treatment, including x-ray, diathermy, intravenous injections of hypertonic solutions to reduce edema, forced spinal drainage, and various efforts at chemotherapy, including sulfanilamide and related drugs. So far all of these have failed to prove their value. The most controversial subject involves the use of convalescent serum, and immune or hyperimmune serum for early treatment.

The principle of treating poliomyelitis with human immune serum rests on the evidence that the serum of many convalescents, as well as many who have no history of the disease, contains neutralizing antibodies for the virus. Opinions regarding the potential value of this theory of treatment are hopelessly conflicting, but many of the contrary opinions have been voiced by such *ex cathedra* authority that their views are very commonly accepted. I would not, for a moment, support the contention that the value of serum treatment has been absolutely proved, but I am strongly of the opinion that it is a promising method which has not been proved valueless by all the evidence submitted against it.

It is perfectly true that most of the assembled large series of cases treated by serum have shown no statistical improvement in the end-results. According to Park,<sup>1</sup> Fischer,<sup>2</sup> and others, this is sufficient evidence that it is of no value. The cases which support this view almost exclusively include those treated with relatively small amounts of serum. This is an extremely critical test, for small amounts of serum could conceivably benefit the general run of cases only if the serum were tremendously potent. This disease is admittedly resistant to therapy, and serum is not hyperimmune, but only weakly antiviral in action. It could scarcely be anticipated that treatment of a resistant disease with a weak serum would give statistical evidence comparable to that of routine treatment of diphtheria with antitoxin. What statistical evidence could be provided, for example, by antitoxin treatment of diphtheria with a routine of 100 to 500 units as a standard dose, particularly if every third dose were entirely lacking in antitoxin?

Significant analogies are presented by other infections. Meningococcus disease treated with antimeningococcus serum does not show in statistical studies, from all over the country,<sup>3</sup> a great departure from the untreated mortality. Here we deal with virulent infection treated with a weakly antibacterial agent. Most clinicians of experience, nevertheless, grant that antimeningococcus serum demonstrates its value in many individual cases. A comparable state of affairs exists in measles: a

recent paper showed convincingly that the course of measles is unaffected by 20 to 40 cubic centimeters of adult blood (weakly antiviral), given at the onset of symptoms.<sup>4</sup> Equally convincing reports show that intravenous injection of 50 to 200 cubic centimeters of convalescent serum (more strongly antiviral) will abort an attack even after onset.

Even though they are in the minority, excellent clinicians from all over the world have expressed the opinion that the course of poliomyelitis is beneficially affected by large amounts of convalescent serum (Jensen,<sup>5</sup> Harmon,<sup>6</sup> Levinson<sup>7</sup>). Best of all these is the experience of Levinson, whose series, treated with large doses, has some statistical merit. Opinions based on intensive treatment of a few cases may be in error, but should not be discredited on the basis of a series treated with homeopathic doses.

Convalescent serum does not greatly benefit experimental infection in monkeys after the onset of symptoms. This, too, is a most bitterly critical test under which many therapeutic methods would also fail. The production of infection in naturally insusceptible animals requires such large doses of virus as to be quantitatively beyond the possibility of treatment and totally incapable of comparison with the natural attack in susceptible human beings.

It has been said that virus infections gain entrance within the cells and are completely insusceptible to therapeutic serum. If this general principle is common to virus infections, it should apply to measles which, however, can be definitely aborted by large amounts of convalescent serum. We recently, and quite accidentally, had a similar experience in aborting chicken-pox by a transfusion given at the onset of the eruption. The virus of poliomyelitis in the nervous tissue may be insusceptible to serum therapy, but the only test of this hypothesis will be actual experience in poliomyelitis, and cannot rest on conjecture, however well founded.

It is commonly stated that the choroid barrier prevents antibodies in the circulation from reaching lesions in the central nervous system.<sup>8</sup> This rests on a poor conception of the physiology of the central nervous system. The choroid barrier lies between the blood stream and the spinal fluid, the principle might apply to meningitis (although it does not), but the spinal fluid is not the nutrient medium of the brain and cord, and antibodies can best be carried to the depths of the nervous system through the blood, without the necessity of first reaching the spinal fluid. It can quickly be demonstrated at any convenient bar that certain substances can quickly be brought to the brain cells by the blood, and it has recently been conclusively shown that antibodies can also thus quickly reach the brain cells.<sup>9</sup> Somewhat concerned with this theoretical question is the proposal that antibodies should be administered intrathecally, a form of treatment originally sponsored by some of those now bitterly opposed to any similar form of therapy. It seems altogether illogical that antibodies should be given into the subarachnoid space in order to reach the lesions of poliomyelitis; for there is, in this disease,

no true meningitis, the virus has not been found in the spinal fluid, antibodies reach the brain and cord less easily through the spinal fluid than through the blood, and it is beyond doubt that such a procedure causes discomfort and actual danger to the patient.

The status of treatment of poliomyelitis with an antiviral serum can fairly be summarized with the statement that none of the arguments against its potential or proved value successfully demolish its rationale, and the opinions of numerous observers support its use in clinical grounds as cogent as those applying to many measures in current use in other infections. The crux of the whole question is, after all, not so much whether serum has proved its value as whether the method of treatment has any *promise* of value. Those who are interested in this form of therapy should continue entirely on an experimental basis, using very large doses of serum. This may not be practical routine, but is essential to the final status of this approach to therapy.

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## DIAPHRAGMATIC HERNIA: RESULTS OF SURGICAL TREATMENT IN 210 CASES \*

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### II †

#### SURGICAL TREATMENT

DIAPHRAGMATIC hernia is primarily a mechanical condition, and the only treatment which will relieve the condition is operative repair or reconstruction of the abnormal opening in the diaphragm. The indications for surgical intervention and the methods and technique of surgical procedures depend on the type, situation, and size of the defect in the structure of the diaphragmatic muscle, the kind and amount of abdominal viscera involved in the hernia, and whether or not the viscera are enclosed in the hernial sac. I shall first describe the general surgical methods and then consider the special technique which is required in the surgical treatment of some types of hernia.

From the standpoint of treatment cases of hiatus hernia may be divided into three groups: in the

first group the hernia is small and is recognized roentgenologically, often during the course of a general examination, and causes few or no clinical symptoms. No treatment is indicated in this group of cases. The second group includes those cases in which the symptoms are moderate and the hernias are of moderate size; in many of the cases in this group, conservative treatment, such as regulation of diet and reduction of weight, is sufficient to relieve the symptoms. The third group includes those cases in which there is no response to conservative measures; in these cases the hernias usually are large, and in many cases, in my experience, there are complications, such as incarceration of the stomach or gastric erosion. In this group of cases the only treatment that assures relief of symptoms is operative repair of the hernia.

In all cases in which a third or more of the stomach is involved in the hernia, surgical intervention should be considered because the condition is progressive and usually becomes rapidly worse after the hernia has attained this size. Operation should be performed before severe incarceration, with consequent obstruction and traumatic lesions of the stomach, has occurred. The operative risk is increased by gastric retention, and the technical difficulties are enhanced by fixation of the stomach to the diaphragm and to the hernial sac within the thorax. In all cases in which the colon is involved in the hernia, early operation is necessary because of the danger of intestinal obstruction.

Other types of hernia, such as traumatic hernia or those in which there is a congenital absence of a portion of the diaphragm, should be treated surgically, because the colon and small bowel are usually involved in the hernia and there is great danger of intestinal obstruction. In cases of traumatic hernia it is best not to operate until the acute symptoms caused by the primary injury have subsided, if the patient's condition will permit this delay.

*Interruption of the Phrenic Nerve.*—Paralysis of the diaphragm, produced either by temporary or permanent interruption of the phrenic nerve, is of value as a procedure preliminary to radical operative repair of many different types of diaphragmatic hernia. It is a necessary procedure in the surgical treatment of partial thoracic stomach resulting from a congenitally short esophagus. In some cases in which radical operative repair is contraindicated, it may be used as a palliative measure. In most instances in which interruption of the phrenic nerve is utilized as a procedure preliminary to radical operative repair of the hernia, I prefer, first, to perform temporary interruption of the nerve by crushing it, because in many instances it may not be necessary for the paralysis to be permanent. Function is usually reestablished in three to six months. In cases in which reestablishment of function of the diaphragm is not desirable because of the danger of recurrence of the hernia, the paralysis can be made permanent by cutting or avulsing the phrenic nerve. As a procedure preliminary to radical surgical treatment,

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Fig. 1.—Esophageal hiatus hernia, with herniation of two-thirds of the cardiac end of the stomach into the posterior mediastinum, and extension into the right thoracic cavity. There is marked elevation and displacement of the esophagus to the right.

interruption of the phrenic nerve is often of value in the treatment of incarcerated and strangulated hernias because it prevents spasm of muscle and causes relaxation of the hernial ring. It is of great advantage in the closure of large hernial openings when there is considerable loss of structure of the diaphragm, as is usually found in traumatic or congenital hernias. The relaxation of the diaphragm following this procedure permits the structural defect to be closed without tension, and in cases of traumatic hernia in which the diaphragm has been torn from the thoracic wall it permits the diaphragm to be sutured to the intercostal muscles.

Interruption of the phrenic nerve may be utilized as a palliative measure in para-esophageal diaphragmatic hernia when the radical operative procedure of closure of the enlarged esophageal hiatus is contraindicated because of the patient's condition and when the stomach is the only abdominal viscus involved in the hernia. The purpose of this procedure is to prevent spasm of the diaphragm, which is the cause of the severe attacks of incarceration of the stomach in the hernial sac.

Phrenicotomy, as a sole procedure, does not completely relieve the symptoms. There is always a moderate amount of gastric distress immediately after, or shortly after the ingestion of heavy meals, but the patients get along rather well if they are careful with their diet. This procedure is not applicable to hernias in which a large portion of the stomach is in the thorax, causing marked pressure on the heart and lungs, nor is it applicable in any case in which the intestines are involved in the hernia. This procedure should not be employed when radical operative repair can be effected.

### *Radical Surgical Repair.*

**Anesthesia.**—The method of administration of the anesthetic agent depends on the type of hernia which is present. In all cases in which there is no hernial sac, and in which there is a direct communication between the abdominal and thoracic cavities, I prefer intratracheal administration of the anesthetic agent by means of a positive pressure machine. In cases in which there is a hernial sac, as in the esophageal hiatus type of hernia, the anesthetic agent can be administered by the closed-mask method.

**General Technical Considerations.**—In the treatment of all hernias that have occurred through the left portion of the diaphragm, I prefer the abdominal approach by means of an oblique left rectus incision, starting at the ensiform cartilage and extending to the outer border of the rectus muscle. I believe there is less risk of thoracic complications when this approach is used. It is of particular advantage in cases of esophageal hernia, for the herniated stomach is usually confined in a sac in the posterior mediastinum and does not enter the true pleural cavity.

In hernias through the right diaphragm, I prefer the thoracic approach because the large, right lobe of the liver makes the abnormal opening in the diaphragm inaccessible from the abdominal approach.

The technical difficulties of adequate exposure of the hernial openings through the left portion of the diaphragm and the esophageal hiatus are often considerable because of fixation of the left lobe of the liver to the leaf of the diaphragm. The

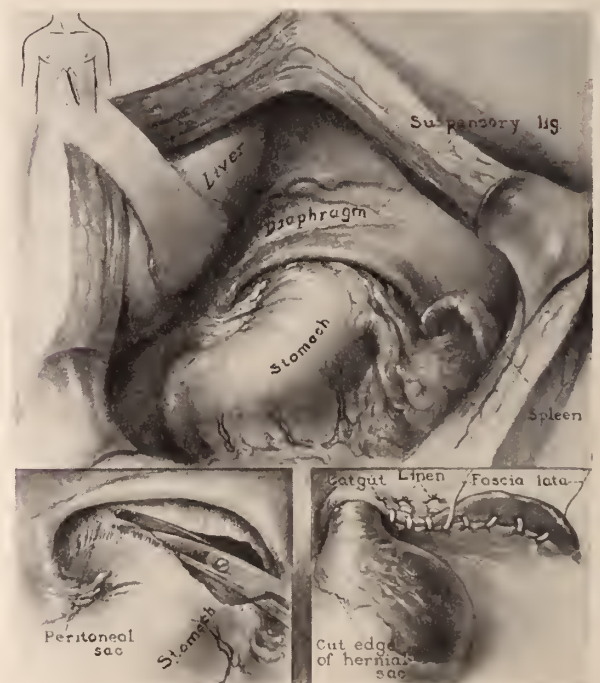


Fig. 2.—Drawing made at time of operation, showing traction on the liver after cutting left suspensory ligament. The upper insert shows the situation of the abdominal incision in the left rectus muscle. The lower inserts show the cutting of the peritoneal covering of the sac from its attachment to the stomach, and repair of the enlarged esophageal hiatus with continuous fascia lata and interrupted linen sutures, after replacement of the stomach in the abdomen.



Fig. 3



Fig. 4



Fig. 5

Fig. 3.—Roentgenogram taken three weeks after operation, showing entire stomach in normal position below the diaphragm.

Fig. 4.—Roentgenogram taken on admission, showing entire stomach in left thoracic cavity and extending to the third rib.

Fig. 5.—Transverse colon herniated into the left thoracic cavity, extending to the apex.

exposure of these hernial openings is greatly facilitated by cutting the suspensory ligament and retracting the left lobe of the liver to the right. This can be accomplished, when the left lobe is small, by folding it on itself, and when it is large, by retracting it forward into the wound. The spleen is often very adherent to the posterior part of the diaphragm and hernial openings, but usually can be separated from these structures by blunt dissection. In some instances the spleen has been so traumatized by the injury, and bound into its abnormal position by adhesions, that it cannot be separated from the hernial opening without seriously injuring it. This not uncommonly occurs in the traumatic types of hernia, but occasionally in esophageal hiatus hernias. In these cases splenectomy is necessary.

*Esophageal Hiatus Hernia.*—Hernias through the esophageal hiatus are true hernias and have a hernial sac. The attachment of the sac to the stomach must be separated and the sac either completely removed or permitted to retract into the posterior mediastinum. I believe that this is one of the most important technical considerations in the surgical treatment of these hernias.

After the sac has been removed, the enlarged esophageal hiatus is repaired by overlapping the margins of the opening. Closure is usually made to the left of the esophagus, but in some cases it is necessary to close, partially, both to the right and left of the esophagus. In a few instances the enlargement of the esophageal opening is posterior, extending to the spinal column and requiring the overlapping of the margins posterior to the esophagus. In such cases, the condition is often thought to be a herniation through the aortic opening, but extending over the aorta there usually is an imperfectly developed, fibrous band which is the margin of the defective esophageal hiatus. The closure is usually made with living sutures of fascia lata which are removed from the thigh. The overlapped margins of the hernial opening are

first stabilized with interrupted linen sutures. The fascia lata is then woven into the tissues by continuous suture and fixed in the tissues with interrupted linen sutures.

In many cases in which the stomach is incarcerated, or obstructed, it is impossible to pass a stomach tube into the obstructed loculus of the stomach before operation. In these cases it is

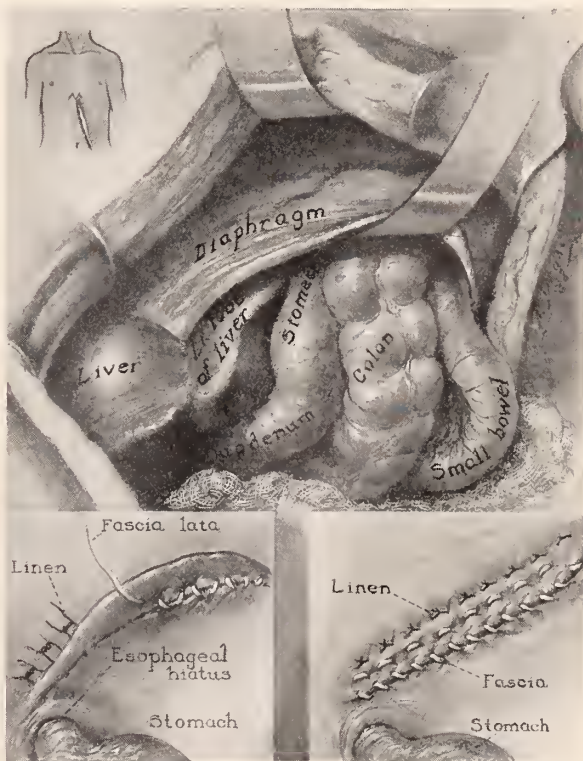


Fig. 6.—Drawing at time of operation, showing large laceration of left diaphragm. There is herniation of the entire stomach, transverse colon, many loops of small bowel and the left lobe of the liver into the left thoracic cavity. The lower inserts show the repair of the large laceration of the diaphragm, with continuous fascia lata and interrupted linen sutures, after replacement of the herniated abdominal viscera in the abdomen.



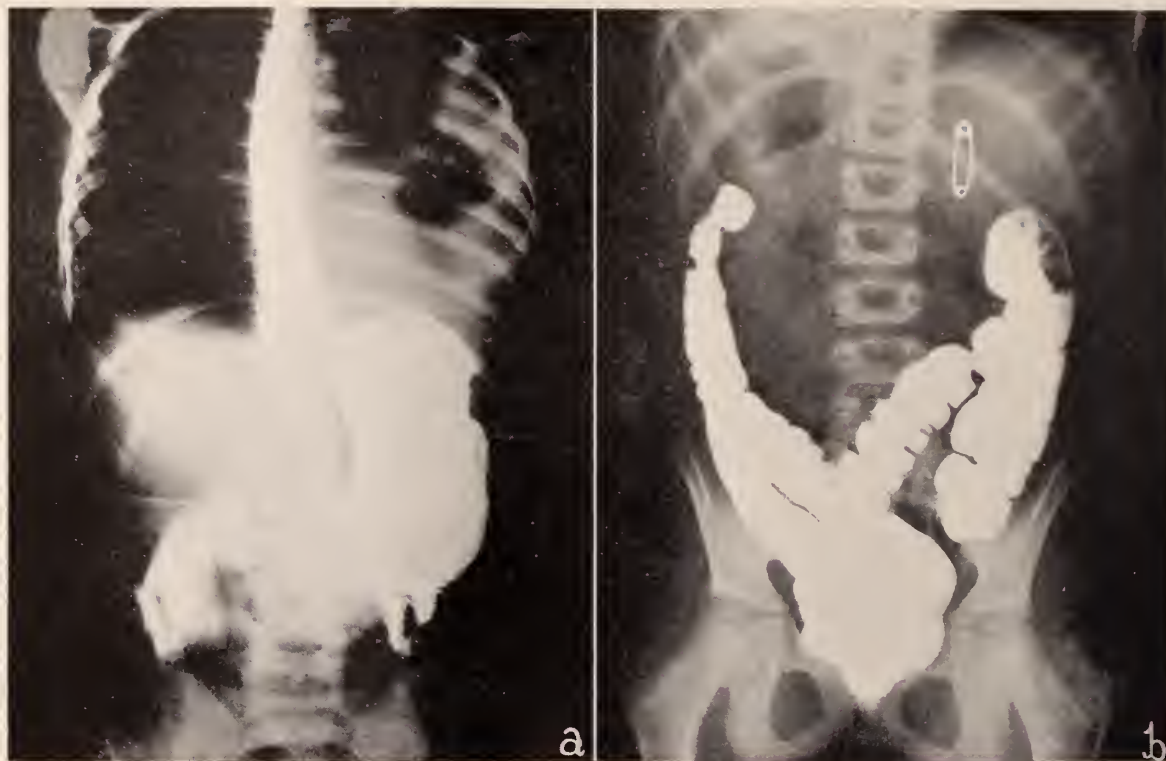


Fig. 7a

Fig. 7b

Figs. 7a and 7b.—Roentgenograms taken after operation, showing entire stomach and colon in normal position below the repaired diaphragm.

advisable to pass a stomach tube soon after the abdomen is opened, directing the tube into the obstructed portion of the stomach in order to empty the gastric contents before any attempt is made to reduce the herniated viscera, because of the danger of regurgitation and aspiration of gastric contents into the lung.

Before closure of the defective esophageal hiatus is completed around the lower part of the esophagus, it is important that a stomach tube of large caliber should be passed through the esophagus into the stomach, to aid in the reconstruction of the normal esophageal opening and to prevent constriction of the esophagus by a tight closure. A small portion of the esophageal wall is incorporated in the innermost margin of the closure by a suture of chromic catgut.

Not uncommonly in these cases there is an associated traumatic erosion in the herniated portion of the stomach, along the lesser curvature, close to the cardia, and this erosion is often adherent to the margins of the hernial opening. Great care should be used in replacing the stomach in the abdomen, and in removing the sac from the stomach because of the danger of perforating this thinned-out portion. In cases in which the ulcerated portion is penetrated, it should be repaired immediately with continuous catgut and linen sutures.

The abdomen should always be thoroughly explored for any other lesion, particularly of the stomach or gall-bladder. In some cases it may be necessary to operate on other associated lesions. However, I do not believe it advisable to carry

out any additional surgical procedure at the time of repairing the hernia, unless it is imperative, but it is well to know whether the patient has gall-stones or any other lesion, in the upper part of the abdomen, which might account for subsequent symptoms. (Figs. 1, 2 and 3.)

*Congenital and Traumatic Hernias.*—In treatment of congenital and traumatic hernias that occur through the left part of the diaphragm, the abdominal approach previously described is used. There is rarely, if ever, a hernial sac and the abdominal viscera are in direct contact with the thoracic viscera. In cases of traumatic hernia the abdominal viscera may extend to the apex of the thoracic cavity, and are usually very adherent to both the abdominal and thoracic sides of the diaphragm, and to the structures within the thorax. The adhesions to the margins of the opening and to the under surface of the diaphragm are often very marked, and should be separated first. The adhesions to the structures within the thoracic cavity are separated from below upward by approaching them through the hernial opening. By the abdominal approach this can be accomplished with little danger of injury to the abdominal or thoracic viscera, because the definite relationship of the herniated structures can be established.

In cases in which there has been considerable loss of structure, or in cases in which the muscle has been torn from its attachment to the thoracic wall, the defect in the diaphragm should be repaired by fascia lata stabilized with linen sutures. I believe this to be the most satisfactory type of closure in all of these cases. In cases of traumatic

hernia in which the laceration is confined to the dome of the diaphragmatic muscle, it usually is advisable to repair the opening by lapping the anterior margin over the posterior margin of the opening. When possible, it is advisable to overlap the margins of the opening from 2 to 3 centimeters. In those cases in which the laceration splits the muscle of the esophageal ring, great care should be taken in repairing the esophageal hiatus. In those cases in which the laceration extends to the margin of the thorax, and in which the attachments of the diaphragm are torn from the thoracic wall, the repair is made not only by overlapping the laceration of the leaf of the diaphragm, but by resuturing the diaphragmatic muscle to the thoracic wall. This can be accomplished by suturing the diaphragmatic muscle to the intercostal muscles between the ribs and, when possible, it should span two interspaces, being fixed to the intercostal muscles with fascia lata and stabilized with interrupted linen sutures. In a few instances the relaxation of the diaphragmatic muscle caused by interruption of the phrenic nerve will not permit enough relaxation of the muscle for repair of the defect. In these cases the diameter of the thorax must be narrowed by resecting the lower ribs by thoracoplasty. It is usually not necessary to resect more than a few inches of the ninth and tenth ribs at the angles. Congenital hernias in which there is considerable loss of structure are repaired in the same manner.

In all of these cases in which there has been a direct communication between the abdominal and thoracic cavities, every effort should be made to reestablish the negative pressure within the pleural cavity by removing the air, and by expanding the lung before the opening in the diaphragm is closed completely. In some instances this cannot be accomplished until after the rent in the diaphragm has been closed. In some cases pneumothorax may push the mediastinum and heart to the opposite side, and cause marked embarrassment of respiration and circulation. In these cases it is imperative that the mediastinum be stabilized in the midline immediately by aspirating the air from the pleural cavity with a needle until the pressure is negative. In cases of congenital hernia in which the lung has been collapsed from birth, I do not think it is advisable to attempt forceful, rapid expansion of the lung, as this may lead to hyperventilation as a result of forcing a large amount of the lung, which had never before been active, to function. In these cases the patients are best treated by aspirating the air from the pleural cavity, and allowing the lung to expand gradually for a time. I think it advisable to make a roentgenogram before the patient leaves the operating table, so as to determine the amount of pulmonary expansion.

Before closing the abdomen, the herniated viscera should be thoroughly explored, to be certain that there has been no injury to a viscus or that there are no bands of adhesions which will interfere with the function of the abdominal viscera. In cases in which there has been considerable ob-

TABLE 2	
Radical repair of defect in diaphragm	185
Approach: Abdominal—183    Thoracic—2	
Preliminary interruption of phrenic nerve	105
Preliminary extrapleural thoracoplasty	2
Operations in conjunction with repair of hernia:	
Gastric resection for gastric ulcer (Polya)	1
Closure of perforated gastric erosion	2
Posterior gastro-enterostomy for gastric ulcer (1) Posterior gastro-enterostomy for duodenal ulcer (2)	3
Splenectomy for tuberculosis (1) Traumatic injury (2)	3
Appendicostomy for obstruction	1
Interruption of left phrenic nerve (hiatus hernias) Palliative—7    Therapeutic—18	25
TOTAL	210
Operative deaths—9	
Recurrences: Traumatic hernias—0. Hiatus hernias—6. 195 patients recovered from operation and were relieved of symptoms.	

struction of the large bowel it may be necessary to perform appendicostomy or colostomy at the time of operation. All patients are placed in an oxygen cabinet or in an oxygen chamber immediately after the operation. (Figs. 4, 5, 6 and 7a and b.)

RESULTS

Table 2 shows the method of repair of the diaphragmatic hernia, the necessary, associated operative procedures at the time of repair of the hernia, and the results of operation in 210 cases on which this paper is based.

As noted previously in this paper, twenty-three of these patients had undergone operations for the same complaint without relief of symptoms, but were completely relieved following repair of the hernia.

Of the six recurrences, all occurred in esophageal hiatus type of hernia. Three of the patients had recurrence of symptoms. In two cases the symptoms were severe enough to require secondary operation, which repaired the recurrent hernia and relieved the symptoms. The third patient had moderate symptoms which are not sufficiently severe to warrant operation. In the three remaining cases, the recurrences were discovered by roentgenologic examination. There was a slight protrusion of the cardiac end of the stomach through the esophageal orifice, but the patients did not have any clinical symptoms of recurrence, and surgical treatment was not deemed necessary. In the last 115 cases in which operation has been performed for diaphragmatic hernia, there have been only two operative deaths.

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## CHRONIC ULCERATIVE COLITIS\*

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DISCUSSION by LeROY Brooks, M.D., San Francisco;  
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## PART II†

## II. Question of Other Organisms.

OUTSIDE of the question of the relationship of dysentery bacilli to ulcerative colitis, various other organisms have received consideration. We shall select only some of the more important of these suggestions in order to give an idea of the trend of research and its general results.

Paulson<sup>11</sup> has given a well-balanced and, in our opinion, thoroughly sound summary of the present status of idiopathic ulcerative colitis. Written in 1933, his conclusions can be accepted as valid today, and as suggesting the direction for further clinical and experimental study. Paulson regards ulcerative colitis as a syndrome possibly due to variable, but so far of no demonstrable single etiology. It has resemblances and agreements with chronic bacillary dysentery, but the exact relationship is still *sub judice*. A definite connection with foci of infection remains to be proved. "There is neither satisfactory direct evidence nor properly controlled confirmatory studies establishing a specific or primary etiologic association between any bacterium and chronic ulcerative colitis." Properly considering this condition as a syndrome, one must consider that Paulson does not of necessity demand a single common etiology, nor does he exclude single varieties of bacteria as causative in some cases. He states that "experimental data indicate the non-specificity of bacterial influences in this disorder. Recent work suggests that the greater and more prolonged the bleeding, regardless of cause, the greater will be the diminution of the flora and the more marked the relative increase in cocci. These cocci, and to a lesser extent the other surviving intestinal organisms normally present, probably are responsible for a secondary infection."

There has been much controversy over the validity of the diplococcus, described by Barger<sup>12</sup> in a series of papers. We have not recovered this organism in any of our cases in other than very minor proportions. Paulson<sup>11</sup> has adequately discussed this problem, and we agree with him that the relationship of this diplococcus to ulcerative colitis lacks satisfactory confirmation. The therapeutic results reported seem as likely to have followed adjuvant, or other, or spontaneous causes. In our earlier experience with vaccines made from this diplostreptococcus, we felt that favorable clinical results, when they occurred, were largely influenced by psychologic factors in use of the vaccine, especially in neurotic, nervous and somewhat hyperthyroid patients.

The recent work of Dack<sup>13</sup> and his associates at the University of Chicago, reported in a series

of papers, opens up a new field of clinical and animal experimentation. Dack has studied the bacterial flora in the colons of three patients following isolation of the colon by ileostomy. He has found an anaerobic organism, *Bacterium necrophorum*, predominating after a period of months, when the colon was entirely free from bacteria maintained by the fecal current. This organism was pathogenic for rabbits, tended to cause spreading lesions, and was easily and quickly killed by oxygen. He isolated a similar organism from the colons of monkeys, which was probably present there in the normal intestinal tract, since it developed in necrotic membranes formed over rectal areas denuded of mucosa. It was not found in healthy, isolated colons of two monkeys, nor in normal colons. Dack has demonstrated complement-fixing bodies in the sera of four patients with ulcerative colitis, using an antigen prepared from the same organism cultured from the isolated colons of two patients with ulcerative colitis. Very slight fixation of complement occurred with an antigen of monkey origin. The serum of one young adult with a normal colon gave a very slight positive result, and the sera of four other healthy young adults gave negative results. Suggestive agglutination reactions were also obtained. These results are highly suggestive and direct attention into a fairly new field. Of fourteen patients in whom Dack's culture technique was followed, we have recovered the same organism in two, to whom reference will be made later. Dack and his associates properly state that further study is necessary before any definite organism can be considered as a causative agent in chronic ulcerative colitis.

Later experience led Dack, Dragstedt, and Heinz<sup>14</sup> to report that *B. necrophorum* persisted as a predominant type, so long as the colon was diseased and became less abundant during remissions. "It was isolated by appropriate methods from the nonisolated colon in seven out of twelve additional cases of nonspecific chronic ulcerative colitis and in two cases of specific ulcerative colitis. Complement-fixing antibodies for *Bacterium necrophorum* were found in the serum of fourteen out of sixteen cases of typical chronic ulcerative colitis and in only three of sixteen control patients. These facts, together with the abundant evidence in the literature supporting the pathogenicity of this organism to lower animals and man, have led us seriously to consider *Bacterium necrophorum* as of etiologic significance in chronic ulcerative colitis."

## SUMMARY OF THIRTY-FIVE CASES

Thirty-five private cases of chronic ulcerative colitis have been reviewed, with special reference to factors related to their bacteriology. Of the thirty-five cases, twenty males had an average age when first seen of 36.2 years, and symptoms had then been present for an average of 7.0 years, giving an average age of onset of 29.2 years. The youngest male was 18 years of age, with a disease duration of six years, and the oldest was 63, with a disease duration of twenty-eight years. Of the fifteen females, the average age when first seen was 34.8 years, and symptoms had then been present for an average of 3.5 years, giving an average age of onset of 31.3 years. The youngest female was 19 years of age, with a disease duration of eight months, and the oldest was 65, with a disease duration of five years.

\* From Hooper Foundation for Medical Research, University of California.

† Part I appeared in CALIFORNIA AND WESTERN MEDICINE, June, 1939, on page 402.

Of the thirty-five cases, two eventually had colonic cancer. Seventeen were nervous to neurotic in temperament, and eighteen were phlegmatic. Nine cases were definitely preceded and in some, overlapped, by amebiasis. Four cases, out of twenty-six x-rayed, showed trophic changes in the small intestine. Of nineteen cases in which stomach acidity was tested by a fractional alcohol meal, five males and seven females showed achylia or extreme reduction of acid, three males and two females showed normal acid curves, and two males showed hyperacidity. All thirty-five cases had cultures made by sigmoidoscope for dysentery bacilli. Of these four, or 11.4 per cent, were positive (one culture each). Twenty cases were examined for serum agglutination of dysentery bacilli. Five, or 25 per cent, were positive in a significant titer. In only one of the four cases positive on culture was the agglutination reaction positive.

Aerobic bacterial cultures were made in twenty-eight cases by B. Eddie of the Hooper Foundation and by Lucien D. Hertert, from swabs taken as deeply as possible with the sigmoidoscope. The total findings and distribution of bacteria in number of patients is shown below.

*Bacillus coli*, 28; *B. coli* hemolyticus, 5; *B. paracoli*, 4; *B. coli* chromogenic, 1; *Staphylococcus aureus*, 4; *Staphylococcus*, 1; *Staphylococcus albus*, 7; *Staphylococcus fecalis*, 3; *Streptococcus fecalis*, 1; *Alpha streptococcus*, 2; *Alpha hemolytic streptococcus*, 4; *Nonhemolytic streptococcus*, 1; *Beta hemolytic streptococcus*, 4; *Gamma streptococcus*, 5; *Diphtheroids*, 11; *Bacillus proteus*, 1; *Bacillus alkaligenes*, 1; *Bacillus dysenteriae*, 4; *Streptococcus* (unspecified), 2.

Anaerobic cultures were made in fourteen cases by the technique of Dack, by the same bacteriologists, from swabs taken deeply by sigmoidoscope either from curetted ulcer bases or deeply rubbed mucosa. The swabs were put at once into large tubes filled with CO<sub>2</sub> and the inoculated culture media were in the vacuum jar within fifteen minutes of removal of the swabs from the patients. Miss Eddie and Mr. Hertert<sup>15</sup> state: "The bacteriologic studies in this series followed as closely as possible the technique of Dack, Heinz, and Dragstedt.<sup>13</sup> Specimens were taken on a swab or curet. Gram and acid-fast stains were made of smears in order to study morphology. No spirochetes or fusiform bacilli were found. The predominant flora was that of Gram-positive cocci and rods with a few Gram-negative cocci and rods.

"(1) Blood and eosin methylene-blue plates were inoculated and spread over the surface by a glass dolly, incubated at 37 degrees centigrade for forty-eight hours aerobically. By this method the nonlactose fermenting bacteria (*Shigella*, typhoids and aerobic flora of streptococci, staphylococci, diphtheroids and *B. coli*) were recorded, identified, and studied.

"(2) Blood-agar plates (10 per cent sheep blood in veal infusion agar) were directly plated out and incubated anaerobically. Anaerobic blood-agar plates were placed in a large pyrex vacuum desiccator and the pressure was reduced to the vapor tension of water. The jar was then washed out thoroughly with carbon dioxide, and again exhausted to the vapor tension of water. It was incubated for four days at 37 degrees centigrade before being opened. To insure maintenance of anaerobic conditions, and to remove any traces of oxygen which might be given off by the blood, a saturated pyrogallol acid solution and sodium carbonate was kept in the base of the jar. This was renewed each time the jar was used.

"On opening the jar, careful study was made of the different colonies, of morphology and Gram stains. Transfers were made to dextrose cystin agar.<sup>16</sup> After good growth the organisms were identified by their biochemical, milk and gelatin reactions. Serologic tests were made whenever possible to complete the identification. After identification, all anaerobic tests were kept under anaerobic observation for two to three weeks."

The total findings and distribution of bacteria under anaerobic conditions in number of patients is shown below:

*Bacillus coli* in 11 of 14 cases; *Bacillus para-coli*, 1; *Bacillus coli* chromogenic, 3; *Staphylococcus aureus*, 3; *Staphylococcus albus*, 2; *Alpha hemolytic streptococcus*, 7; *Beta hemolytic streptococcus*, 2; *Gamma streptococcus*, 2; *Gamma hemolytic streptococcus*, 2; *Diphtheroids*, 7; *B. subtilis*, 1; *B. proteus*, 1; *Bacillus necrophorum*, 1; *Bacterioides*, 2.

## COMMENT

In general, it appears that, in considering the etiology of chronic ulcerative colitis, little influence is shown by inheritance, race, temperament, or age. Decreased stomach acidity was present in twelve of nineteen patients. There is no indication as to whether this had any relation to the colitis, so far as the types of colonic bacteria are concerned. It cannot be assumed that the low acidity was either cause or result of the colitis.

The presence of dysentery bacilli in 11.4 per cent of thirty-five cases is significant and in line with surveys elsewhere. Without extensive series showing increased percentage of positive cultures with increased number of cultures, we cannot believe that extending the number of cultures is of practical value. In other words, review of the literature, together with the findings here reported, lead to the belief that two or three cultures may somewhat increase the number of positives over one culture, but that the increase of positives by further cultures will be so slight as to have little, if any, clinical value, even assuming that the inconstancy and rarity of appearance of *B. dysenteriae* does not nullify its importance as a primary pathogen.

The sparse distribution of bacteria of known pathogenicity, such as the *Beta streptococcus* group and even *Bacillus dysenteriae*, opens up definite treatment possibilities even though it does not substantiate an etiologic relationship for the group. The high percentage of cases (25.7 per cent) having antecedent amebiasis deserves particular attention, although here, also, treatment would only be influenced where amebas are actually present. It is evident, in cases where the symptomatology is continuous but the amebic colitis is replaced by chronic ulcerative colitis, that anti-amebic treatment must be given until the amebic factor is definitely absent, after which anti-amebic drugs are not indicated.

## INDICATIONS AS TO ETIOLOGY

It seems clear that chronic ulcerative colitis must be considered as a regional or general continuing colitis in which the wall of the colon has received some definite, often unknown, type of damage, and is then invaded by whatever bacteria are available or in contiguity from the lumen. The original damage in a certain group of variable size is from *B. dysenteriae*. Another sizable group is initiated by amebiasis. It seems probable that some sort of food deficiency, as for instance vitamin G, may be the original cause. This deficiency, again, may follow functional or inorganic change in the absorptive power, and motor functioning of the small intestine. A congenital predisposing cause may be found in the neurotic temperament of some patients. In any case, given the original damage, the way is prepared for invasion of the colonic wall by a great variety of bacteria. The mere presence of certain bacteria does not mean an etiologic relation, but their growth in and on the ulcerated wall of the intestine can fully explain the variable symptoms, the remissions and the enormous difference in virulence in different patients.



Without a much more exact diagnostic idea than is possible to obtain of the colon in life, it is equally impossible to formulate an exact idea of prognosis and of treatment. For that reason the time for surgical intervention is set with difficulty. Some aggravated, almost malignant, cases clear up with treatment that can only lead to the conclusion that the cure is automatic. Others recur, or persist, in spite of the most carefully evaluated treatment. To forecast the general course is hardly possible and, therefore the time for ileostomy, cecostomy or colectomy becomes a matter of judgment in the individual case.

#### INDICATIONS FOR TREATMENT

Certain points give indications for treatment. In the presence of *B. dysenteriae*, obviously specific treatment with autogenous dysentery vaccine or with stock polyvalent serum is to be advised. This may not cure, inasmuch as *B. dysenteriae* may be only one of several infecting organisms. Nor is it certain that *B. dysenteriae* is always a primary infector. The primary, as well as other secondary causes, may require additional treatment. To a somewhat less extent, these considerations hold good also in coexisting amebiasis.

When Beta streptococci are present, especially when found both on aerobic and anaerobic culture, the use of sulphanilamide by mouth is justifiable. Undoubtedly, those cases which are going to have a serious prognosis ought to have early ileostomy. The difficulty is to find a safe criterion of bad prognosis. In practice this resolves itself into long duration, with more or less constancy of severe symptoms. Examination of removed colons and of post-mortem colons shows how ineffective are irrigations. Some symptomatic benefit is often obtained, but curative effects cannot be expected.

Autogenous total vaccines, including both aerobic and anaerobic organisms, frequently are highly beneficial in improving the host's resistance to the organisms concerned. These, however, are always secondary invaders, and treatment must include adequate therapeutic (not maintenance) dosage of vitamins, especially the B-G complex, adequate intake of minerals, particularly sodium chlorid, calcium and phosphorus, and certainty that absorption is adequate. Obviously, mechanical protectives have a place, such as bismuth carbonate and kaolin. Relief of irritation and irritability of the colon is of definite assistance in decreasing the effects of the bacterial secondary invaders. Paregoric and belladonna preparations are of service in this regard. Dietary considerations are not related to the bacterial picture except that, undoubtedly, some bacterial strays picked up by culture are from ingested food and not from colonic lesions. This may possibly happen even with *B. dysenteriae* at times, especially in the presence of decreased gastric acidity.

#### IN CONCLUSION

1. Chronic ulcerative colitis is divisible into several groups:

(a) Cases due to chronic bacillary dysentery or where *B. dysenteriae* furnishes the opportunity

for other bacteria to invade the colon, or where *B. dysenteriae* is itself a secondary invader.

(b) Cases preceded or accompanied by amebiasis. In these, secondary bacterial invasion is invariable and must receive separate and additional consideration in treatment.

(c) Cases associated with numerous and constantly present hemolytic streptococci, especially of the Beta type. These, too, are probably secondary infections.

(d) A large residuum of cases, which indeed may yet prove to include all above, in which a primary biologic damage has been done to the colon, most likely by a food deficiency (as in B-G complex), by congenital conditions which are poorly, if it all, understood, or by a preceding severe infection as with *Endamedia histolytica* or *B. dysenteriae*. Secondary to this primary damage the colonic wall is invaded by a heterogenous mixture of bacteria, both harmless and pathogenic, whose selection depends on what is available in the contiguous colonic lumen.

2. From this study, conclusions are drawn as to the difficulty of prognosis in the individual case, and the consequent difficulty of planning specific or adequate treatment.

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#### DISCUSSION

LEROY BROOKS, M. D. (2000 Van Ness Avenue, San Francisco).—The excellent discourse by Doctor Reed has demonstrated that the etiology of chronic ulcerative colitis is still unknown. He has also equally clearly indicated that the choice of treatment of this weird malady is shrouded in mystery. The extensive review of the bacteriologic studies on the subject makes it unnecessary for me to attempt further superfluous discussion on this aspect of the problem. There is, however, an increasing amount of evidence which points toward an anaerobic infection of the bowel wall.

I have been deeply interested in the surgical treatment of these miserable people. It has been my experience that when the surgeon sees a patient with chronic ulcerative colitis the disease has resulted in destruction of the colon and there has been definite injury to the vital organs, as a result of the prolonged sepsis and starvation. This is no fault of the medical man, but due to the uncertain course of a disease from which a patient may recover or go on to advanced stages as we all know them.

Recently, while in New York, I was fortunate to be able to attend a symposium on the subject of colitis at the Bellevue Hospital, starting at 9 a. m., lasting all day, and ending with a discussion at the New York Academy of Medicine in the evening. The discussions covered all phases of the subject, including bacteriologic studies, vaccines, vitamin deficiencies, etc., and pointed clearly to the inadequacy of any form of treatment in the light of our

present knowledge. I attended these sessions with interrogated anticipation of learning some criteria as a guide in making a decision as to when surgery was or was not indicated. I regret to state that no definite criteria concerning an earlier surgical attack came forth. Each case must be decided on its own merits; and since the surgical treatment is only a makeshift at its best, and the course of the disease is so varied, it is but natural that surgery is resorted to only in advanced stages of the disease.

I have grave doubts as to the permanent curative value of ileostomy, because who can say that the occasional case of colitis that clears up with ileostomy, and remains healed after subsequent closure of the fistula, was idiopathic colitis from the beginning. The clinical course and frequent x-ray studies of the colon, by injection of air and barium enemas and proctoscopic examinations, furnish the clinician with the most definite guide as to the type of treatment required. When the mucous membrane of the rectum and sigmoid is destroyed, as seen by the proctoscopic examination, and the haustral markings of the upper colon are obliterated, in all probability a colectomy will have to be done. It would be highly preferable, however, to do the surgery earlier before the long period of sepsis had occurred, if we had any way of being certain as to which case would ultimately require radical surgery.

Once colectomy becomes a necessity, an ileostomy must be done as the first step of the operation. This then can be followed by the removal of the colon in two or more stages, as the patient's condition will permit. It is important to keep in mind that patients who have had prolonged sepsis stand major surgical procedures poorly; and when in doubt, one should adapt the most conservative method of multiple-stage operations with adequate supportive pre- and postoperative treatment.

For the permanent ileostomy I prefer to bring the ileum through the right rectus muscle in a zigzag fashion for better control. If the ileostomy is made just below the level of the umbilicus, the bag will be more comfortable and give better protection from leakage than if the opening is placed too close to the iliac crest.

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JESSE L. CARR, M.D. (384 Post Street, San Francisco). A discussion of a paper as complete as Doctor Reed's can hardly add anything new or anything uncovered in the assignment Doctor Reed has given himself. There is left only one possible phase to discuss, and that is the cytologic change in bowels affected; and in following these changes through a number of cases, both of Doctor Reed's and cases from other sources, it seems pathologically evident that not only clinically, but in a tissue sense as well, ulcerative colitis is a progressive disease not due to any single organism, and not due to any single cytologic change. For instance, in the acute cases where death sometimes occurs and the pathologist has an opportunity to observe the tissue damage, the lesion is superficial, involving the mucosa and, to a lesser extent, the submucosa and muscularis mucosa. There is, of course, a break in the continuity of the mucous lining, ulceration, infection, infiltration of inflammatory elements, edema, and a large amount of congestion. As the disease progresses, however, from the initial phase of injury, both exudative and proliferative changes occur in the deep layers of the bowel, extending entirely through the muscle. At this time, because of the location of the lesion, the habit of growth of the organisms, causing the reaction, must also change. For instance, while cultures of the early lesion on the surface of the mucosa are often those growing best under aerobic conditions, cultures taken deep in the bowel wall rarely grow under proper aerobic technique, but require either a partial tension or an anaerobic habitat. Either the organisms causing the initial lesion become facultative or the entire bacterial flora changes. In studying cultures and bacterial stains of sections taken from various levels of the bowel, it seems that both of these things happen. Certainly, the tissue changes over a period of months follow a course as suggested by Doctor Reed, with a gradual transition of either the requirements of a single organism or the injection of a new type into an already existing disease to provide the cytologic changes found in these cases.

## THE LURE OF MEDICAL HISTORY<sup>†</sup>

### MEDICINE IN COLONIAL AMERICA\*

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#### III\*\*

##### REMEDIES OTHER THAN "RUBILA"

IN addition to rubila, Winthrop used niter (sodium or potassium nitrate, which he gave in doses of twenty to thirty grains and three grains to infants), iron, sulphur, calomel, rhubarb, guaiacum, jalap, horse radish, anodyne mithradate, coral in powdered form, amber, and electuary of millipedese. He also prescribed elder, ecampane, anise, wormwood, and unicorn's horn. Guaiacum is a resin of the wood of a West Indies tree and has diaphoretic and stimulant qualities. Jalap is a very strong cathartic named in honor of Jalapa, the Mexican town from which it was brought. Amber is the oil from the fossil resin of a northern European pine, and is an antispasmodic stimulant. To explain the electuary of millipedese we quote from an old medical dictionary: "For very obstinate jaundice: the expressed juice of 40 or 50 living millepedes given in a milk drink." Unicorn's horn was popularly considered one of the most marvelous of remedies. In reality, it was the tusk of a marine mammal inhabiting the northern waters and was known as the sea unicorn or narwhal. It was considered an effective antidote for poisons of all kinds, the bites of snakes, various fevers, and the plague.

Medical acumen, it would seem, was the common lot of the Winthrop family. Wait wrote to his brother, Fitz John, that he knew of "no better antidote in fevers than the black powder, niter, snake-weed, lignum vitae, white cordial powder, unicorn horn, all of which you know the use of." "Mix the snakewood and lig. vitae with niter to take in the morning; mix fower graines apiece of coral, *oculi cancorum*, and ivory to be taken at any time; thre or fower graines of unicorn's horn mixt with the black powder at night; but remember that rubila be taken at the beginning of any illness." If taken at "the very beginning of it, must needs abate much of the malignity of it, and so render it less dangerous."

Sir Kenelm Digby wrote to Winthrop in 1656 of one of his own medicines: "In the mean time let me tell you of an easy medicine of mine owne that I have seene do miraculous cures in all sorts of vlcers and in mending suddainly broken bones wch I conceive it doth by carrying away by vrine

<sup>†</sup> A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

\* From the Department of History, Stanford University. The author prepared this essay a number of years ago when he was an undergraduate. The friendly interest of an esteemed colleague in the Stanford Medical School has induced him to overcome his hesitations and offer the study to a wider circle of readers.

\*\* Parts I and II were published in the issues of CALIFORNIA AND WESTERN MEDICINE for May, 1939, page 355, and June, page 415.



the ichorous matter that infesteth such maladies; and then nature healeth and knitteth apace, when nothing hindereth her. It is this:

Beate to a subtile powder one ounce of Crabbes eyes (in latin *oculi cancorum*) then put upon it in a high glasse (because of the ebullition) fore ounces of a strong vinegar. It will instantly boyle up, extremely: let it stand till all be quiett—then strain it through a fine linon—and if this liquor (wch will taste like dead beere without any sharpness) give two spoonfuls att a time to drink three times: and you shall see a strange effect, in a weeke or two."

Still another remedy of Digby's was as follows:

Pare the patients nayles when the fit is coming on; and put the parings into a little bagge of fine linon or sarsenet; and tye that about a live eeles neck, in a tubbe of water. The eele will dye, and the patient will recover. And if a dog or hog eate that eele, they also will dye.

He claimed to have had "infallible successe" with it.

This following remedy was taken from the notebook of John Wadsworth, Duxbury:

This Receipt cost me fifty pounds by count, and I pray yt you would not expose the same without good fee: this for a canser proves exelant, and if in time applied will cure a canser humor. Take 3 frogs and put ym into a deep airthen Basen and power upon them as much swete oyel as will cover them, put ym into a hot oven and let ym stand a quarter of an houre, then turn off the remaining oyel and dip two in it and apply to the canser: and for a plaster you must take the yolkes of 2 eggs, Burnt Allow 1 oz. Boal Armonick, 1 oz. Bay salt one half oz. Bruze all to a fine powder and mix up with yr yolkes of eggs and apply in form of a plaster to the sore every 3rd day. Give a portion of a spoon of salts to cool the hete of the Blood; this alwaies will carry off a canser humor if timely applied: the person must make them constant Drink canser root tea. . . . We may att sartain times apply a tode cutt in two to the wound two or three times a week the nature of yr tode is such yt will draw out the sharp hot canserous and pysonous and if you proseded in this manner you may cure any canser.

#### WHAT ENDICOTT WROTE TO WINTHROP

The following letter from John Endicott to Winthrop indicates some of the substances used in common practice and, in the last sentence, gives a delightful confession well appreciated, perhaps, by modern physicians:

Worthie Sir—I ame sorrie to heare of your affliction in this visitation of God; though you know that whom he loveth he chastiseth. Let that comfort you, etc.

I have sent you of all I have, or what I can gett; viz Syrup of Violets, Sirrup or Roses, Spirits of Mint, Spirits of Annis, as you may see written upon the several vials, I have sent Mrs. Beggarly her unicorns horne, & Beza stone I had of Mr. Humfry, who is sorry also for your exercise. I have sent you a Be(z) oar stone, & mugwart & organie, if you should have need of it. They are both good in this case of your wife, & also I have sent you some Galingall root. Mrs. Beggarly knows the vse of it. If the fit of the mother come verie violently, as you write, there is nothing better to suppress the rising of it than sneezing; a little powder of tobacco taken in her nose, I think is better than Helibore. If I knew how or which way in this case to do her good, I would, with all my heart, and would now have come to you, but I ame altogether vnskillful in these cases of women.

#### TOBACCO IN EPILEPSY

Relative to the use of tobacco as a cure for "fits," Roger Williams, founder of Rhode Island, wrote of his son, who was "troubled with a spice of epilepsie": "We used some remedies, but it hath pleased God by taking of tobacco perfectly (as we hope) to cure him."

#### JOHN JOSSELYN'S SUGGESTIONS

While they undoubtedly represent for the most part the products of an uncritical, unprofessional mind, some of the remedies of John Josselyn indicate the extent to which the Doctrine of Signatures had a hold on the unsuspecting popular mind of the time. Josselyn made two voyages to New England, in 1672 and 1674, and though he describes the sun and almost everything under it on the American side of the Atlantic, his incessant references to numerous healing concoctions betray a keen interest in practical therapy. From his suggestions the following are selected at random:

The bark thereof [the pine tree] is good for Ulcers in tender persons that refuse sharp medicines. The inner bark of a young board-pine cut small and stampd and boiled in a Gallon of water is a very sovereign medicine for burn or scald, washing the sore with some of the decoction, and then laying on the bark stampd very soft; or for frozen limbs, to take out the sore and to heal them, take the bark of Board-pine-tree, cut it small and stamp it and boil it in a gallon of water of Gelley, wash the sore with the liquor, stamp the bark again till it be very soft and bind it on. The Turpentine is excellent to heal wounds and cuts, and hath all the properties of Venice Turpentine, the Rosen is as good as Frankincense, and the powder of the dried leaves generateth flesh; the distilled water of the green cones taketh away wrinkles in the face being laid on with Cloths.

For the "Firr-Tree" he claims:

The leaves or Cones boiled in Beer good for Scurvie. The young buds are excellent to put into Epithemes for Warts and Corns. . . .

Josselyn continues:

Alder, of which wood there is abundance in the wet swamps: the bark thereof with the yolk of an Egg is good for a strain; an Indian bruising of his knee, chew'd the bark of Alder fasting and laid it to, which quickly helped him. The wives of our West-Country English made a drink with the seeds of Alder, giving it to their Children troubled with Alloes. Have talk'd with many of them, but could never apprehend what disease it should be they so named. . . .

The leaves of Sarsaparilla . . . pounded with Hogs grease and boiled to an ungent, is excellent in the curing of wounds.

A neighbor of mine in Hay-time, having overheated himself, and melted his grease, with striving to outmowe another man, fell dangerously sick, not being able to turn himself in his bed, his stomach gon, and his heart fainting ever and anon; to whom I administered the decoction of Avens-Roots and leaves in water and wine, sweetning it with Syrup of Clove-Gilliflowers, in one weeks time it recovered him, so that he was able to perform his daily work.

Glass-wort, a little quantity of this plant you may take for the Dropsie, but be very careful that you take not too much, for it worketh impetuously.

I will finish this part of my relation concerning plants, with an admirable plant for the curing and taking away of Corns, which many times sore troubleth the Traveller: it is not above a handfull high; the little branches are woodie, the leaves like the leaves of a Box, but broader and much thicker, hard and of a deep grass-green colour; this bruised or champt in the mouth and laid upon the Corn will take it away clean in one night.

#### RACOONS, BEARS, AND OTHER ANIMALS: THEIR PLACE IN THERAPY

After reading the preceding remedies, it is not surprising to find therapeutical value latent in the bodies of many of the indigenous beasts. "The Raccoon or Rattoon is of two sorts, gray Rattoons and black Rattoons, ther grease is soveraign for

wounds with bruises, aches, streins, bruises; and to anoint after broken bones and dislocations."

The bears, also, make their contribution. "Their grease is very sovereign. One Mr. Purchase cured himself of the Sciatica with Bears-grease, keeping some of it continually in his groine. It is good for swell'd cheeks upon cold, for Rupture, for the hands in winter, for limbs taken suddenly with Sciatica, Gout, or other diseases that cannot stand upright or go, bed-rid. . . .

"The fat of a Rattle-snake is very Sovereign for frozen limbs, bruises, lameness by falls, Aches, Sprains. The heart of a Rattle-snake dried and pulverized and drunk with wine or beer is an approved remedy against the biting and venome of a Rattle-snake. Their skins likewise worn as a Gerter is an excellent remedie against the cramp.

"I was taught by a Barbary Negro a medicine which before I proceed any further I will impart unto you, and that was for a swelling under the throat. Take Goats hair and clay and boil them in a fair water to a poultis, and apply it very warm.

"For falling off of the hair occasioned by the coldness of the climate, and to make it curl, take the strong watter called Rhum and wash or bath your head therewith; it is an admirable remedie."

#### EMPIRICAL REMEDIES

By the middle of the eighteenth century there was a decided shift toward an empirical basis for treatment. For example, during the yellow fever epidemic in Philadelphia in 1741, Doctor Kearsley found that the best treatment was the free use of saline purgatives; he then based his treatment on thorough purging with Glauber's salts, and sustaining the patient with cordials or wine, together with "an antiemetic, composed of tartar vitriolat gr x, and a half or whole drop of ol, cinnamon every four hours, and a spoonful of a strong decoction of snakeroot every two hours"; but he did not use much Peruvian Bark (quinine), for fear of irritating the stomach too much.

#### HOW CONTAGION WAS OVERCOME

To prevent contagion Doctor Kearsley kept a bowl of vinegar in the room of the patient and "a hot iron sometimes therein," and before attending the case would dip his hands into the vinegar and rub his face with it. Concerning it, he says: "This was the chief preventive or preservative I used, besides great temperance, avoiding to visit patients fasting if possible, and keeping tobacco in my mouth while in the sickroom, not from any expectation of benefit from any quality in the tobacco, except that of preventing my swallowing my saliva. This method I found better than a constant use of preservatives, which after a little time I perceived to affect my mind with such fears as I thought were likely to render me more susceptible of infection than the omission of them, and so discarded them and went fearless tho' thoughtless wherever called, and I thank God have been preserved harmless from such ills to this day."

#### PREVENTION OF YELLOW FEVER

For general precautions against yellow fever the people built fires in the streets to purify the air and

took all conceivable cares. Concerning the situation, Packard quotes from Matthew Carey's description as follows: "Most of those who could by any means make it convenient, fled from the city. Of those who remained, many shut themselves up in their houses, being afraid to walk in the streets. The smoke of tobacco being regarded as a preventive, many persons, even women and small boys, had segars almost constantly in their mouths. Others, placing full confidence in garlic, chewed it almost the whole day; some kept it in their pockets and shoes."

#### "AGUE AND FEVER" IN THE SOUTHERN STATES

The practitioners of Virginia and the other southern colonies were as ready and willing as their northern colleagues to give large doses of a choice assortment of medicines upon the slightest provocation. The conventional course followed in the case of the most common disease of the country, ague and fever, was to prescribe first several spoonfuls of *crocus metallorum*, a favorite Virginia remedy imported from England; then, as a cathartic, fifteen to twenty grains of that "impetuous" rosin of jalap; this was followed by Venice treacle, powder of snakeroot, a native medicament, or Gascoin's powder. This last medicine was called "the compound powder of calcined crab's claws," but it is doubtful that it really was a literal crab's claw preparation. Powders, ointments, plasters, and oils were among the medicines most generally used.

#### OVERUSE OF MEDICINES

In New York the unstinted giving of medicines was as notorious as elsewhere. Some sources available relating to diphtheria cases in 1755 and later, show frightful abuses of children. Opium, mercury, antimony, emetics, blisters, and blood-letting were prescribed just as readily as for adults. Doctor Bard, a reputable physician, gave from thirty to forty grains of calomel in five or six days to a child of three or four years. Dr. Peter Middleton recommended "free juglar venescation, a blister over the throat from ear to ear, and other evacuants as they are indicated." In desperate cases Doctor Bayley recommended "repeated bleeding *ad deliquium* from the juglars, the free use of tartar emetic and other evacuants, with a large blister covering the larynx." Doctor Stearns, who later founded the New York Academy of Medicine, used "calomel, cerated glass of antimony, and seneca." The first two were always combined in very large doses and repeated every six or eight hours until they completed the cure.

#### SURGICAL RECORDS OF THE COLONIAL PERIOD

The surgical records of the colonies are fragmentary. But occasional references well confirm the supposition that the status of surgery at the time when the barber-surgeon was still a familiar institution was very low. In the earliest days of the colonies, most of the representatives of that class came to America as ship surgeons and were, necessarily, characterized by instability and incompetence. But as pioneer posts grew into colonial towns, the "chirurgeons" were, of course,



of an increasingly higher order until, by the middle of the eighteenth century, students were returning from Europe with the best training the Continent afforded.

An amusing reference to surgery is to be found in the transactions of the Maryland General Court. In 1643 Thomas Hebden demanded "210 lbs. tob. [tobacco] of Eds. Hall, due for accot of chirurgery of his man's legg and diett per 9 weeks." In a later record it is discovered that it was Hebden's wife who "did chirurgery upon the legg of John Greenwell, the man servt of Said Ed. Hall, & did diett him for 7 weeks, or thereabouts."

#### FIRST AMPUTATION PERFORMED IN PENNSYLVANIA

From the journal of Thomas Story we take the account of the first amputation performed in Pennsylvania. One can but hope that it was not typical. In honor of William Penn's second visit to the colony a salute of welcome was fired, but a young man who was standing in the way got his arm so severely injured that an operation was "resolv'd upon by Dr. Griffith Owen (a friend), the Surgeon, and some other skillful persons present, which according was done without delay. But as the arm was cut off, some Spirits in the Bason happened to take Fire, and being spilt upon the Surgeon's Aprin, set his Cloaths on fire; and there being a great crowd of Spectators, some of them in the Way, and in Danger of being scalded, as the Surgeon himself was upon the Hands and Face; but running into the street the Fire was quenched; and so quick was he that the patient lost not very much blood, though left in the open bleeding condition."

#### LATER OPERATIVE PROCEDURES

With the development of more accurate anatomical information and accuracy of diagnosis, the surgeons attempted major operations more often, and some of them gained fame for abdominal incisions, removing stones, and cesarean sections. However, with the lack of anesthetics and the commonest notions of sanitary precautions against infections, the story of early surgery is largely a morbid account of pain and futile suffering.

#### BLOOD-LETTING

Perhaps most of the surgical work was in that now curious practice of blood-letting, or phlebotomy. Coming from an unknown origin in antiquity, for two thousand years it was used for healing. Hippocrates believed in it, drawing blood from the legs, arms, forehead, and under the tongue, but he left no directions for the amount of blood to be drawn. After him grave successors indulged in many questions about where to bleed and how much should be let, but, seemingly, it did not suggest itself to them to question its efficacy.

The immediate results of drawing blood, they believed, were caused by the rapidity of withdrawal and the after-effects determined by the quantity withdrawn. Nutrition, it was agreed, was markedly improved; when blood was let carefully, appetite and digestion were stimulated. The circulation was calmed by small and frequent bleedings, and this

favoring the deposition of fat. Sensibilities were increased and the brain was not impaired, though it was considered "highly necessary to attend to the state of mind and feelings of the patient," and "in persons of a timid disposition, the bare proposal of the operation of bleeding or even expectation of it, will sometimes occasion such general disorder of the system and in the pulse more especially, as may lead us to form an erroneous opinion as to the existing malady and its treatment."

Clutterbuck, in a lecture on blood-letting, said: "In regard to its curative powers, blood-letting is capable of removing, with more or less facility, though never perhaps with absolute certainty, a great number of diseases, which but for its aid, would endanger or destroy life, and which cannot be effectually combated by other means."

Blood-letting was employed to overcome diseases in several ways, by merely reducing the mass of the blood, by a general weakening of the system, and, lastly, as a sedative to diminish vascular activity and excitement. Reducing the mass of the blood was used to combat that situation regarded as influential in the beginning of a disease, regardless of what it was, called Plethora. This morbid condition was thought to be due to an excess of red corpuscles. The second theory aimed at a condition called sthenic, characterized by excessive action of the vital processes, by weakening the system. In a fever and excitement, blood was drawn for its sedative effect.

It was generally considered that in a moderate operation from eight to twelve ounces of blood should be drawn. The loss of 16 or 20 ounces was a large bleeding. However, practice often exceeded the theoretical prescriptions. Doctor Rush of Philadelphia took 90 ounces of blood from his friend, Doctor Dewees, "with advantage." He also took 80 ounces within a few hours from a delicate young woman approaching the end of pregnancy. From a similar patient he took 120 ounces within five or six hours, and twenty more the day following. The patient recovered, but was blind for a fortnight and did not completely regain sight for six months. And, too, there is the story of an emaciated, diabetic boy, from whom 209 ounces—13 pounds—of blood were taken at twelve successive bleedings in the course of fifty-one days. No doubt equally amazing accounts could be recited indefinitely, but from them one wishes to turn in a spirit of thankfulness that, after two thousand years or more, the world has learned better.

#### IN CONCLUSION

Medicine, then, in Colonial America was far from the science of today. Ranging from the sheerest absurdities to the chance findings of trial and error, the remedies and treatments of the epoch present a pathetically crude array of things for the relief of human ills. Yet, all in all, with its ignorance and its frauds, medicine in Colonial America was an attempt to minister to the needs of the suffering; and even though we have outgrown it, we can well look backward with interest and sympathy.

Department of History, Stanford University.

## CLINICAL NOTES AND CASE REPORTS

### COMPLETE EXTERNAL DISLOCATION OF THE ASTRAGALUS BONE

By M. C. COLLINS, M.D.

AND

J. L. COLLINS, M.D.

*Turlock*

COMPLETE external dislocation of the astragalus bone is seldom encountered and, when it does occur, satisfactory healing is rare. Consequently, few reports concerning this condition are to be found in the current literature. Reports indicate that the completely detached astragalus has been boiled, treated with antiseptics, or simply replaced without the foregoing procedures. However, this has resulted in either infection or a gradual absorption of the bone. At the present time, should it occur as above, it is considered better judgment not to replace the detached bone, but to do a sub-astragaloid arthrodesis with the distal end of the tibia and fibula. This procedure would decrease the incidence of infection and shorten the period of disability, as such an arthrodesis has invariably been required before completion of the case.

The blood supply to the tarsal bones is notably very poor. It was unusual that absorption did not take place in the following case.

#### REPORT OF CASE

V. H., a white male, twenty-one years of age, was admitted to the Collins Hospital on August 7, 1937, within one-half hour following an automobile accident. Examination revealed an old amputation just below the left knee; a comminuted fracture of the left femur at the junction of its upper and middle one-third; and the right astragalus was lying beneath the sock on the right foot attached to the structures of the foot by a shred of ligament approximately three millimeters in diameter at its anterior surface. An x-ray examination (Figure 1) further revealed some crushing of the posterior inferior border of the distal end of the tibia, and of the posterior border of the superior articular surface of the calcaneus. The injured man had been operating the vehicle, and when the impact occurred the foot was forcibly inverted. The force of impact was transmitted down the straight leg to this inverted ankle. The skin, subcutaneous tissue and ligaments had parted, leaving a 3½-inch laceration just distal to the lateral malleolus, while the astragalus had been "popped out" like a pea from a pod. The foot then assumed the normal position, which approximated the lacerated edges, leaving the astragalus lying between the skin and the sock (Figure 1). Treatment con-

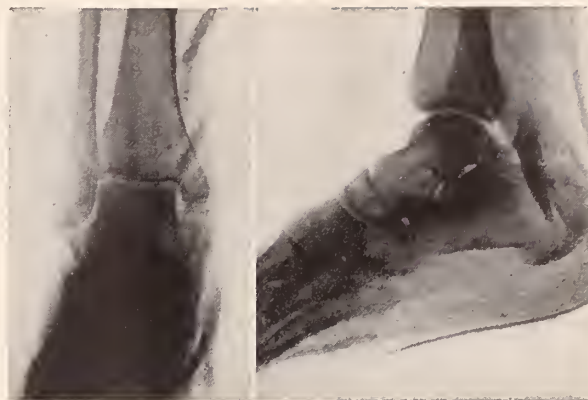


Fig. 2.—Anteroposterior and lateral views, taken immediately after replacement of dislocated astragalus bone on August 7, 1937.

sisted of cleansing the skin with soap and water, painting with tincture of merthiolate, debriding the skin edges, irrigating the cavity left by the extruded astragalus, and flushing the astragalus itself with 1/2000 bichlorid of mercury solution, forcibly inverting the foot and replacing the astragalus, and closing the laceration with mattress sutures of dermal. No buried sutures were used. The extremity was then placed in a posterior molded plaster of Paris splint, with the foot and ankle in the neutral position (Figure 2). The fracture of the left femur was treated by means of skeletal traction. Some 1500 units of tetanus antitoxin were administered. On August 24, 1937, the sutures were removed from the right foot. Healing of the wound was complete, except for a superficial sloughing of the skin at the suture line. This healed in a few days, with dressings of zinc oxid ointment. On September 10, 1937, active movement of the right ankle was initiated, and on September 14, 1937, the patient was transferred to the county hospital for further care. The injured person visited our office on November 15, 1937, using crutches, which he discarded a few days later. The left femur had healed. The right foot and ankle were swelling a little each evening, and caused him a little pain laterally when he bore the weight of the body on the ball of the foot with the leg extended as in walking. Movements of the ankle-joint proper were slightly limited at the extremes of the movements, and there was no perceptible movement at the astragalo-calcaneal junction. X-ray showed a normal tibio-fibular-astragalus joint, but there was an ankylosis at the astragalo-calcaneal articulation. Reexamination on April 9, 1938, revealed the same x-ray findings (Figure 3) and the foot or ankle neither pained him nor caused him any discomfort.

#### SUMMARY

A complete external dislocation of the astragalus bone with replacement and with satisfactory result is here reported.

Crane and Center Streets.



Fig. 1.—Anteroposterior and lateral views of right foot, taken on August 7, 1937, and showing externally dislocated astragalus bone.

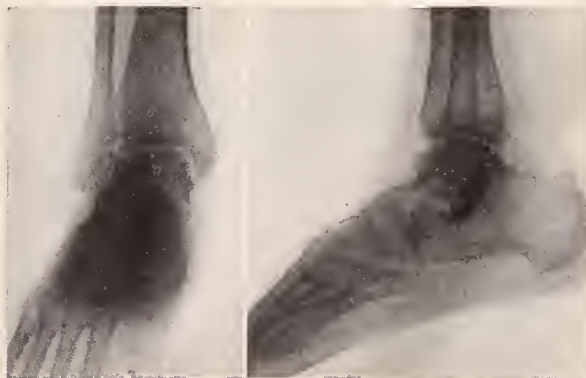


Fig. 3.—Anteroposterior and lateral views, taken on April 9, 1938, showing end-result.



# BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

## CORONARY THROMBOSIS

### I. SYMPTOMS AND DIAGNOSIS

R. MANNING CLARKE, M. D. (1219 Hollingsworth Building, Los Angeles).—To set coronary thrombosis aside, entirely by itself, is really an arbitrary thing. It should be considered only as one stage of coronary disease. In this manner do we best get the broad viewpoint that we should have regarding it? This point, I believe, has been recognized and emphasized by most cardiologists. In fact, myocardial infarction may assume so many different clinical pictures that it is difficult sometimes to recognize. This makes it much safer for us to study coronary disease as a whole than to think of it only in terms of coronary thrombosis. J. B. Herrick, one of the pioneers in this subject, writing in the *Journal of the American Medical Association* in 1912, said:

No simple picture of the condition can, therefore, be drawn. All attempts at dividing these clinical manifestations into groups must be artificial and more or less imperfect. Yet such an attempt is not without value, as it enables one to better understand the gravity of an obstructive accident, to differentiate it from other conditions presenting somewhat similar symptoms, and to employ a more rational therapy that may, to a slight extent at least, be more efficient.

It would not be possible for me to find words as suitable as these to describe the situation as well.

**Pain.**—Pain probably heads the list as the most important and cardinal symptom. It is strictly an anginal type of pain. It is substernal, precordial, and has the classical anginal distribution. It may go down into the upper abdomen, simulating upper abdominal disease such as gall-bladder, perforated ulcer, acute pancreatitis, etc. It is transmitted up into the neck, the shoulders, the arms, the ring and little fingers. The character of this pain is a crushing, squeezing, oppressive type of pain, and one that is most difficult to bear.

The absence of pain must not mislead one, for many cases of coronary thrombosis occur in which there is no pain experienced by the patient. When a full-sized vessel without previous narrowing is abruptly thrombosed, pain is usually very severe; but when a vessel that has been narrowing over a long period of time becomes finally occluded, the shock symptoms are very much less, and the pain may be entirely absent. The history of these patients usually shows previous anginal type of pain. It has been, however, relieved by the nitrites and usually lasts only a few short minutes, whereas the pain of coronary thrombosis lasts from several hours to several days.

**Dyspnea.**—Dyspnea is a prominent symptom. There are those who believe it to be more common than pain. However that may be, it is due to the inability of the left ventricle to meet the systemic

needs. This condition occurs usually in a patient that is well up in the age bracket, and there may have been a myocardial insufficiency before the accident of coronary thrombosis. In any event, it is apt to be exaggerated after the infarction.

It is very easy for coronary thrombosis patients to confuse dyspnea with substernal oppression and a peculiar type of pain or distress. Dyspnea may range all the way from a very slight affair to the terrific disturbance produced by cardiac asthma. Pain and dyspnea are probably the two most consistent symptoms.

Congestive failure may dominate the picture completely, or it may be so slight as to show only in a few crepitant râles in the lung bases.

**Shock Symptoms.**—The sudden onset of a large and massive infarct causes severe symptoms of shock. These symptoms are a very rapid, thready pulse, a drop in blood pressure, pallor, cold, clammy skin with heavy perspiration, cyanosis, fainting, nausea and vomiting. The size of the vessel occluded and the size of the infarct seem to determine the degree of severity of the shock symptoms presenting themselves.

Blood pressure is one of these dramatic symptoms. If it has been low all along, it may remain what the patient may consider fairly normal. If it has been previously high, there is a marked drop. This drop is especially noticeable in the systolic pressure. There is at times a reactionary rise in pressure which occurs about the sixth week. This rise may become permanent and remain, but more commonly passes after one or two weeks' duration.

**Palpitation.**—Palpitation experienced by the patient is usually due to ectopic beats. However, there may be any type of arrhythmia. This may be an auricular fibrillation, A-V block, paroxysmal ventricular tachycardia, auricular flutter, or ventricular tachycardia. Strange to say, however, patients who are chronic fibrillators over a period of years are usually quite free from coronary thrombosis. Arrhythmias may mean septal involvement and interference with the conduction system by the infarct.

**Embolic Symptoms.**—If the infarct is large and covers sufficient area on the endocardial surface, a mural thrombus usually forms. It is very easy for emboli to break off from this and cause many symptoms in different parts of the body. These may occur in the kidney, spleen, brain, or bowel. In the kidney they cause hematuria, albuminuria, and pain. In the brain they may cause transient aphasia, monoplegia, or even hemiplegia. Happily, the results are fairly transient and, as compared with other things, if the patient gets by his coronary thrombosis, are seldom as damaging as they threatened to be in the beginning.

If the mural thrombus forms in the right side of the heart, pulmonary embolism may occur. It gives evidence of its presence by cough, hemoptysis, localized pain, râles, increased fever, and sometimes a pleuritis. It is often mistaken for a complication of pneumonia.

Fever is rather a constant symptom. It seldom goes above 101 degrees, is usually less and, like most other symptoms, is dependent upon the size and severity of the infarction.

*Diagnosis.*—Careful history and physical examination will make the diagnosis in most cases. Nothing can ever replace them in importance. Present tendencies lean too much toward reliance on laboratory procedures and the neglect of the fine art of history taking, examination and diagnosis thereby.

*History.*—The history often reveals a cardiovascular family tree filled with apoplexy, nephritis, coronary disease and other evidence of arteriosclerosis. Professional types of individuals rank high in number, and angina pectoris has often been present for some time. Blood pressure may be at any point, but very often has been elevated. If on such a background one finds the sudden onset of substernal pain with anginal type of distribution, it is very significant.

*Examination.*—The patient is usually vagatonic, broad-shouldered, with a high diaphragm and large muscles. This "gall-bladder type" of individual is more susceptible than any other. Blood pressure is usually down or falling rapidly. The pulse is fast and thready, and prostration much in evidence, with cold, clammy sweating. Cyanosis and dyspnea are quite universally present. Further common findings of decompensation are râles in lung bases, cough, enlarged and tender liver. Edema and complete failure are less common.

It is possible to have coronary thrombosis with very little evidence elsewhere of arteriosclerosis, but usually the brachials will be beady, tortuous, and rigid. The eye grounds provide evidence of the same thing with indented A-V crossings, increased silver-wire appearance, and sometimes evidence of hemorrhage, either old or new.

Pericardial friction rubs may be heard, provided occlusion is of the anterior type. Even then they are elusive and do not last long.

Heart sounds become distant and soft as the blood pressure falls. Murmurs are notoriously absent in these coronary hearts. A relative mitral murmur may occur as a result of dilatation. If the accident occurs in a heart previously damaged, say by a rheumatic infection, then of course its murmurs persist.

#### *Laboratory Findings:*

*Leukocytosis* is a very valuable and helpful finding. Most commonly it runs around 12,000 to 15,000, and is a polymorphonuclear type. In cases of massive infarct it may, however, go as high as 30,000 and remain elevated for two weeks or well into the third week.

*The sedimentation rate* is increased by all infarctions any place in the body. However, its value is not equal to that of leukocytosis. One of the

reasons for this is that there are so many things that influence the sedimentation rate.

*Electrocardiogram.* There are two main patterns in these tracings. Recent attempts have been made to set up other patterns of infarcts that do not occur in these electrical planes. Up to date they have not been too successful. These two patterns are the anterior and posterior types. They can be epitomized as follows:

#### *Anterior Infarct.*—( $Q_1$ - $T_1$ type.)

Left coronary—(Descending branch, usually apical).

Lead I—Q develops. T high origin, later inversion.

Lead III—ST down, T upright.

Lead IV—F—Initial deflection negative. RS—T elevated. T inverted.

Note: T inversion in all three leads and other variations from above classical statements usually mean multiple or massive infarction.

#### *Posterior Infarct.*—( $Q_3$ - $T_3$ type.)

Right coronary—(Or circumflex branch left coronary. Usually basal.)

Lead I—ST down, T upright.

Lead III—Q develops. T high origin, later inversion.

Lead IV—F—Normal.

*Differential Diagnosis.*—There are many things that can be confused with coronary thrombosis. In the main, however, there are two things: acute upper abdominal disease and angina pectoris.

*Acute upper abdominal disease* is more apt to be found in a woman, and the age is younger. The brachial artery and eye grounds are less liable to show arteriosclerotic disease. It is seldom that its pain radiates very much above the diaphragm. The blood pressure usually remains unchanged or slightly elevated. Its abdominal rigidity is rarely equaled by coronary thrombosis. The leukocytosis is usually higher and develops more abruptly. There is no history of angina pectoris and no pericardial friction rub.

In the past the common error has been mostly to diagnose coronary thrombosis as upper abdominal disease, and sometimes operating, thereby increasing the patient's danger. Since the emphasis placed on thrombosis in recent years, this error is more commonly reversed.

The occurrence of pain, especially after meals, in the upper abdomen of any patient of middle age or above, should direct the mind of the physician to the heart. Before decision is made or surgery performed, the heart should be carefully examined in a consideration of this possibility.

The differentiation between angina pectoris and coronary thrombosis can become difficult, and the decision is an important one. In angina the pain is of short duration, usually lasting only a few minutes. It bears an etiologic relation to exercise or emotional upsets, especially if it occurs following a meal. It is relieved by rest and nitrites. Blood pressure is usually unchanged, and there is no leukocytosis or increased sedimentation rate. No fever occurs. The usual case will cause no trouble. It is the mild case whose pain is slight and whose shock symptoms are not marked that give the diagnostic trouble. In such an event it is best to err on the safe side, and treat it as thrombosis tempo-



rarily until more time clears the picture. Fever, leukocytosis, and increased sedimentation rate are sometimes delayed. It is best not to be precipitous in deciding they are not present. There is no harm in holding decision in abeyance until a few days have gone by and at least two electrocardiographic tracings have been made.

\* \* \*

## II. PROGNOSIS

ERNEST H. FALCONER, M. D., 384 Post Street, San Francisco).—One cannot be guided by rules or by "certain signs and symptoms" in the prognosis of coronary thrombosis or coronary occlusion (more correct term). Let us say it is better to be gifted with prognostic acumen in approaching this difficult problem in the management of a case of coronary occlusion. The author is very conservative in the matter of prognosis in this condition, having been wrong far more times than right; yet there has been a gradual tendency, with increased experience, to assume a more optimistic attitude, as recovery has been successively observed in patients severely ill.

The question of electrocardiograms being of help in prognosis is open to doubt, unless serial tracings are taken over a two- or three-month period. As a rough index, prognosis is grave in those cases suspected of having sustained a large area of infarction, as indicated by the severity of the attack, prolonged abnormal rise of temperature, and leukocytosis. These signs may not be present, as a recent patient seen by the author illustrates. This man had severe precordial pain and collapse, but no abnormal rise of temperature and no leukocytosis—no precordial friction. Autopsy showed a large area of myocardial infarction. Silverberg (*Medical Journal of Australia*, 1:298-305, 1938) analyzed 335 cases of coronary occlusion: 65.4 per cent were between the fifth and seventh decade; 133 are dead, 149 still living, 53 untraced. Death occurred within twenty-four hours in thirteen, three lived up to nine years after the attack, five survived eight to ten years since the initial attack. Silverberg believes one may visualize whether a small or large branch of a coronary artery is involved, from the rapidity of recovery from symptoms of pain and collapse. He also feels that prognosis is more serious in the presence of cardiac hypertrophy and arteriosclerosis, also in cases with complicating general conditions, as bronchitis or renal disease. Other authors stress the presence of diabetes as of bad prognostic significance. Some writers consider the presence of angina pectoris, particularly if it precedes the coronary occlusion, as offering a slightly better outlook for recovery. Glendy, Levine, and White (*Journal of the American Medical Association*, 109:1775-1781, 1937) find prognosis in early life, under forty, is better by two and one-half years of life than in the average case of coronary thrombosis. In comparing coronary occlusion in youth and at all ages, the average period of survival is 4.3 years in the young group and 2.4 years in the latter group.

## III. TREATMENT

WILLIAM W. NEWMAN, M. D. (450 Sutter Street, San Francisco).—At the onset of an attack of acute coronary artery occlusion the immediate and often the very urgent problem is the relief of chest pain. Pain is the presenting symptom. It can almost be laid down as a rule that if there is no pain there is no occlusion; exceptions to this are so very rare as to warrant viewing them with suspicion. The pain is usually, though not always, sufficiently severe to cause the patient to take to his bed and summon his physician, and thus the attack constitutes one of the more common emergencies met with in the practice of cardiology. It may be difficult, if not impossible, to determine off-hand whether a given attack of pain is due to an unusually prolonged attack of ordinary angina pectoris or to coronary obstruction.

Faced with such a diagnostic problem it is our custom (theoretical objections notwithstanding) to immediately place a tablet of nitroglycerin, grains 1/100th, under the patient's tongue, provided only that his systolic blood pressure is not below 100. While observing the effect of this medication on the pain, we utilize the time in preparing a one-quarter grain of morphin sulphate for hypodermic administration. That not too much time be wasted in getting this ready, we find it well to carry a sterile Luer and needle in alcohol, and sterile distilled water in ampoules for dissolving the morphin. Within the five minutes that this preparation may require, the nitroglycerin may have completely relieved the pain, whereupon one may conclude that the attack was *probably* ordinary angina pectoris and not acute coronary artery occlusion. However, contrary to general belief, nitroglycerin may greatly ease, though it will rarely completely eliminate, the pain of acute coronary closure. Hence, if the nitroglycerin has completely relieved the pain, one may administer a mild hypnotic, such as amytal or nembutal—grains one and one-half, to allay restlessness—and then leave, with the plan of returning as soon as reasonably convenient to investigate further (with electrocardiogram, sedimentation rate, leukocyte count, blood pressure, pulse, and temperature determinations, etc.), the possibility that even though relieved by nitroglycerin the attack of pain was due to acute coronary artery occlusion. If further study reveals some such confirmatory evidence, one should enjoin a period of some six weeks' rest in bed, though in these milder attacks one may be persuaded to "shade" this period somewhat because of financial, business, or other exigencies.

On the other hand, if the pain is not entirely relieved by the nitroglycerin, one should immediately administer the morphin by hypodermic. Often this will result, within a half hour, in complete or nearly complete cessation of pain, the patient thereupon, perhaps with the aid of barbital,\* dropping off to sleep. If this is not the case, one may now repeat the quarter of morphin, giving it this time (if the pain is still severe) intravenously. Unfortunately, it is not so very rare that even this second dose may seem to have little or no effect on the

\* A small dose.

agonizing pain, and the patient pleads pitifully for relief. One should, however, attempt to "stick it out" for forty to sixty minutes before giving the third morphin, as it seems to take about that long for the first two doses to cumulate and get in their full effect. Nevertheless, the third quarter and even a fourth, an hour or so later, may be required.

Where pain is so severe as to require more than the first quarter of morphin for its relief, one has a gravely-ill patient to deal with, and other symptoms, in addition to pain, manifest themselves and require attention. Nausea and often vomiting occur, but no attempt should be made to relieve them by washing out the stomach, giving enemas, cathartics, or alkaline draughts. When the pain is alleviated, the vomiting usually stops; if morphin seems to aggravate it, one may be forced to substitute dilaudid, grains 1/120th to 1/60th, while sodium luminal, grains two, intramuscularly, seems to help nausea and aid rest. Shock, more or less profound, will probably develop. If it does not yield to the application of external heat and the administration of morphin, and the cold clammy sweat and small rapid pulse continue, caffein-sodium-benzoate, grains seven and one-half, may be given intramuscularly and may be repeated in an hour or so, particularly if the morphin has depressed the respiration, *i. e.*, it has dropped below ten per minute or has become periodic. When the pain and shock persist and, particularly if acute left heart failure threatens as evidenced by difficult breathing, râles in the lungs, and even the frothy expectoration of outspoken pulmonary edema, it is well to place the patient in an oxygen tent and to keep him there, perhaps for several days.

This is as far as we like to go with active therapy during these first few hours of the attack. We are well satisfied if only we can keep the patient comfortable and we do nothing except that which will aid toward that end. We do not give digitalis at this time, except in those rare cases which develop auricular fibrillation. We make no attempt to raise the blood pressure. We give by mouth only small amounts of liquids, unless nausea precludes even this. We pay no attention to the bowels for the first twenty-four hours; the next day we may give an enema or colon flush. If the bed pan proves intolerable, a bedside commode, after a day or two, may be easier on the patient. If all goes well after twenty-four hours a soft, and later a more general diet may be allowed; but for a while the patient should be spoon-fed and otherwise spared all unnecessary exertion by the best nursing care the patient can afford.

We do not administer quinidin routinely as a prophylaxis against the occurrence of ventricular tachycardia, but if extra systoles become frequent it may be given in doses of three or four grains three or four times daily. If ventricular tachycardia does occur, intravenous quinidin given very slowly in doses up to fifteen grains may be life-saving.

As days go by signs of passive congestion, such as edema over the sacrum, may develop. Evidence of fluid in the pleural sacs must be closely watched for, and if its presence is suspected and respiration is embarrassed, one should not hesitate to do a

pleural tap. If edema or effusion appear to be steadily increasing, one is now forced to institute digitalization (digitalis, grains one and one-half, three times a day, for about one week\* and then about one and one-half grains daily) even though auricular fibrillation is not present, and diuretics may be necessary, such as theocin, three to five grains three times a day for two or three days, or salyrgan, one or two cubic centimeters intravenously every few days.

After pain disappears, the doses of morphin are much reduced, though small doses are often continued for a few nights to insure rest. Gradually the barbitals are substituted for the opiate, and it is often well to continue mild sedation until convalescence is well established.

If the diet remains restricted for more than two weeks, it may be wise to supplement it with B<sub>1</sub> and perhaps other vitamins. We prefer to keep the patient at absolute bed rest for from four to six weeks after the occurrence of the last chest pain, and preferably also for that period after the blood sedimentation rate, white count, and the temperature have returned to normal and all signs of congestion have cleared. Beyond this point we doubt if prolonged bed rest has a favorable effect on the course of the disease. Unfortunately, only too often one finds it, for one reason or another, impossible to continue absolute rest even this long.

When it is finally decided to begin to permit the patient out of bed, this must be done very gradually, requiring about a week, until he is allowed up most of the day and given bathroom privileges, and another week around the house before trying stairs or going out. After this many of the patients are able to resume practically their former activities, though they should not return to heavy physical work if they can possibly avoid it, nor should the more strenuous sports again be indulged in. Moderation in all the activities of life is, in fact, the best counsel we can give them in attempting to prevent a recurrence of their accident.

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\* Four to seven days.

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*The High Cost of Hospital Care.*—Laymen seldom realize the many reasons why hospitalization costs are so high. Hospital care has become increasingly more expensive as it has become more scientific and has required more and more highly specialized equipment and highly trained personnel. Few realize that the modern hospital normally employs almost twice as many employees as it has bed patients and that besides nurses it employs a corps of workers, including office employees; technicians for x-ray, clinical laboratory, and for physical therapy; social workers; dietitians, cooks, and kitchen helpers; pharmacists; anesthetists; carpenters, painters, gardeners, and maintenance men; orderlies, housekeepers, etc.

The hospital operates on a 24-hour basis, which requires three shifts of nurses and other workers. It must also hold itself in readiness to offer complete service on a moment's notice, whether it be work-day or holiday, day or night. Keeping all facilities and a full personnel available for instant use for such "stand-by" services at all hours is an expensive procedure and is a very important factor in the high cost of hospitalization.—*Berkeley General Hospital Bulletin.*



# CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

## CALIFORNIA MEDICAL ASSOCIATION†

CHARLES A. DUKES.....President  
HARRY H. WILSON.....President-Elect  
LOWELL S. GOIN.....Speaker  
KARL L. SCHAUPP.....Council Chairman  
GEORGE H. KRESS.....Secretary-Treasurer

### OFFICIAL BUSINESS ASSOCIATION ACTIVITIES

1. *Minutes: Council of the California Medical Association.*
2. *Minutes: Committee on Public Health Education.*
3. *Minutes: Executive Committee.*
4. *Superior Court Opinion on Membership Rights.*

### DEPARTMENT OF PUBLIC RELATIONS

1. *Minutes: Committee on Public Relations.*
2. *Press Announcement: Tulare County Medical Association.*
3. *Assembly Vote on Compulsory Health Bill.*
4. *California Physicians Service: Bulletin.*

## COUNCIL OF THE CALIFORNIA MEDICAL ASSOCIATION

### Minutes of the Two Hundred and Seventy-Seventh (277th) Meeting of the Council of the California Medical Association\*

Held in Room 210, Hotel Sir Francis Drake, San Francisco, Saturday, June 3, 1939, at 9:30 a. m.

#### 1. Call to Order:

The meeting was called to order by Chairman Schaupp.

The following members were present: President Charles A. Dukes, President-Elect Harry H. Wilson, Past President William W. Roblee, Speaker Lowell S. Goin, Councilors Karl L. Schaupp, Calvert L. Emmons, Earl Moody, Louis A. Packard, A. E. Anderson, C. Kelly Canelo, Frank A. Macdonald, Henry S. Rogers, George D. Maner, C. O. Tanner, P. K. Gilman, E. J. Best, F. N. Scatena; Chairman of Public Relations Committee George G. Reinle, Secretary-Editor George H. Kress; General Counsel Hartley F. Peart, and his associate, Mr. Howard Hassard.

Absent: Councilors William H. Kiger and O. D. Hamlin.

#### 2. Minutes of the Council:

It was moved by Charles A. Dukes, seconded by A. E. Anderson, that the minutes of the 273rd, 274th, 275th, and 276th meetings of the Council, be approved. Carried.

#### 3. Membership:

It was moved by Calvert L. Emmons, seconded by C. A. Dukes, that Doctors William H. Eaton and J. G. Ware, members of the Santa Barbara County Medical Society, be granted the privilege of the floor to explain their membership status. Carried.

Doctors Eaton and Ware appeared before the Council, stating that their 1939 membership dues had been accepted by the Santa Barbara County Society (their county of former residence); but that, although they had been in practice in Kern County for more than a year, they had not yet applied for membership in Kern County, due to an apparent misunderstanding. Doctor Eaton stated they would present their transfer cards from Santa Barbara to Kern County immediately.

#### 4. Finances:

Treasurer Kress reported on the bank balances, stating that as of June 2, 1939, there was a total cash balance of \$23,494.61, and that annual dues had been paid by all except approximately two hundred members. Also, that a loan of \$15,000 from the Crocker Bank—on collateral borrowed from the Trustees Of The California Medical Association—due April 29, 1939, had been renewed for a period of ninety days.

#### 5. Expenses of Sections:

The following resolution, which was presented by the Eye Section during the Del Monte meeting, was read:

WHEREAS, The California Medical Association is primarily a scientific and professional organization; and

WHEREAS, A considerable sum of money is raised each year in dues; and

WHEREAS, The Section officers, in addition to giving of their time and thought to the duties of the Section, are faced with inevitable expenses incidental to Association work; therefore, be it

Resolved, That the Council of the California Medical Association be respectfully requested to give careful consideration to the allocation of a small sum, not to exceed fifty dollars per year, for the necessary expenses of Association work in each Section.

In the discussion thereon attention was called to the many requests for appropriations being received from various sectional organizations, committees, and societies within the Association.

It was moved by Henry Rogers, seconded by A. E. Anderson, that the resolution of the Eye Section, requesting an appropriation for each of the twelve sections, be referred to the House of Delegates at the next annual session. Carried.

#### 6. Membership Dues:

It was moved by Charles Dukes, seconded by George Reinle, that the membership dues of a deceased member, of Los Angeles County, be returned to his widow in accordance with her request. Carried.

It was moved by A. E. Anderson, seconded by C. A. Dukes, that it be the policy of the Association to return the yearly membership dues of deceased members, when specific requests, based on financial need, are made. Carried.

#### 7. Resolution No. 16—Expenses of Officers and Councilors:

The amendment to the By-Laws, Chapter IV, Section 1 (b) as embodied in the House of Delegates Resolution No. 16, approved at Del Monte on May 4, 1939, was discussed. It was pointed out that the substitution of this amendment for Section 1 of Chapter IV of the by-laws eliminated the provision which excepted councilor expense at annual sessions.

† For complete roster of officers, see advertising pages 2, 4, and 6.

\* Full reports on Items 21, 23 and 37 are on file in the Central Office of the Association.

It was moved by Lowell S. Goin, seconded by E. J. Best, that the policy of the Council in regard to expenses of officers and councilors be as follows: The officers of the California Medical Association are those set forth in Article X, Section 1, of the Constitution; that the per diem allowed by the House of Delegates be understood to apply to those councilors who are absent from the city in which they reside; that the per diem be for the day or days for which the Council is in session; that the expense allowed in addition be the first-class railway fare to and from the place of meeting, plus expense of lower berth; and that in no case shall the travel expense exceed that of the standard round trip fare, plus lower berth. Carried. Doctors Packard and Rogers voted in the negative.

It was moved by Lowell S. Goin, seconded by C. A. Dukes, that it be the policy of the Council that the officers and councilors do not accept per diem or travel expense for Council meetings held during annual sessions, and that the Auditing Committee be so instructed. Carried.

It was moved by Lowell S. Goin, seconded by Charles A. Dukes, that the chairman of the Council in his next annual report of the Council to the House of Delegates point out the discrepancies in the resolution, and ask the House to suggest additional amendments to the aforesaid section of the by-laws. Carried.

#### 8. Delegates to American Medical Association:

It was moved by William Roblee, seconded by A. E. Anderson, that each California Medical Association delegate to the American Medical Association be allowed round-trip railroad fare and the expense of lower berth. Carried.

#### 9. Expenses of Section Officers:

The Council approved the Secretary's action in notifying a member that no provision was made for payment of transportation and hotel expenses of section officers.

#### 10. Special Assessment:

The Secretary reported that \$2,100 had been received to date through payment of the special assessment, and that the checks of 140 members sent direct to the State Association office, instead of to the secretaries of their component county societies, had been forwarded to the respective county societies.

It was moved by George Reinle, seconded by A. E. Anderson, that the special assessment moneys be deposited in a bank to be named by the Chairman of the Council, and in a separate account. Carried.

It was pointed out that, although the activities of the Committee on Public Health Education, outlined in Resolution No. 6, contemplated the employment of a full-time public relations counsel, the State Association Treasurer, in accordance with provisions of the By-Laws, must be responsible for the deposit of funds received from the assessment, and the keeping of proper books and records.

It was moved by George Reinle, seconded by Calvert Emmons, that the Executive Committee be authorized to act in the approval of proposals and policies of the Committee on Public Health Education, and that the Council be informed of the progress made. Carried.

Discussion was had as to the scope of the work to be carried on under the provisions of the resolution and its relation to the constitutional provisions which provide for a department of public relations, director of public relations, and field secretary.

#### 11. Recess:

The hour of 10 a. m. having arrived, the Council recessed to permit meetings of the members and of the directors of the Trustees Of The California Medical Association.

#### 12. Call to Order:

After the recess, the Council was called to order by Chairman Schaupp, who announced that if there were no

objections a representative of a San Francisco newspaper would appear before the Council at 2 p. m. to present plans concerning newspaper publicity.

#### 13. Survey of Association Offices:

The Secretary reported that, in accordance with Resolution No. 1 of the House of Delegates, Speaker Goin had appointed as the Committee on Survey of the Association offices: Elbridge J. Best (chairman), Dewey R. Powell of Stockton, and George D. Maner of Los Angeles.

#### 14. Hours, Pay, and Duties of Governmental Employees:

Secretary Kress stated that, in accordance with Resolution No. 2 of the House of Delegates, Speaker Goin had appointed as the Committee on Hours, Pay, and Duties of Municipal, County, State, and Federal Medical Employees: William Voorsanger, San Francisco, Chairman; L. A. Alesen, Los Angeles; and Robert S. Kneeshaw, San Jose.

#### 15. Life Membership:

It was moved by Charles Dukes, seconded by A. E. Anderson, that the Chairman of the Council appoint the Committee of Three to report on life membership as provided in councilor action and Resolution No. 14 of the House of Delegates.

The committee appointed consists of Robert A. Peers, Chairman, Colfax; A. B. Cook, Los Angeles; and G. W. Walker, Fresno.

#### 16. Department of Public Relations:

George G. Reinle, Chairman of the Committee on Public Relations, presented a report on the activities of the Department of Public relations and outlined the scope of possible work for the coming year.

#### 17. Social Security:

The legal department reported that, following the Del Monte session, the Commissioner of Internal Revenue had issued a ruling declaring all officers, councilors, and committeemen to be officers of the Association and subject to tax on a basis of salaries received. It was pointed out that the Association could acquiesce to the ruling, could pay under protest and file claim for refund, or could refuse to pay, in which event action would be taken against the Association by the Federal Government. Legal Counsel Peart recommended that the Association pay, under protest, and then claim refund.

Legal Counsel Peart also reported that a refund claim had been filed for taxes assessed for the period the Association was exempted under the ruling of the Collector of Internal Revenue that it was a scientific organization, and up to the date of the ruling of the Internal Revenue Department that the California Medical Association would hereafter be classed as a "Business League."

The recommendations of Legal Counsel Peart were approved by the Council.

It was moved by Charles A. Dukes, seconded by A. E. Anderson, that information relative to the ruling of the Internal Revenue Department be sent to each county medical society for the guidance of the secretaries, and that such a letter be prepared by Legal Counsel Peart. Carried.

#### 18. Legislation:

Mr. Ben Read, of the Public Health League, made a progress report on the status of various bills related to medical practice and the public health. Mr. Read stated that present indications were that the Legislature would adjourn about June 17.

It was moved by Charles Dukes, seconded by George Reinle, that the matter of amendments to Section 2175, re citizenship, be left to the judgment of the Committee on Public Policy and Legislation. Carried.

A written report by Doctor Harris, Chairman of the Legislative Committee, Doctor Dukes, President of the



Association, and Lowell S. Goin, Speaker of the House, on the proposed method of legislative activity in the future, was presented for the information of the Council.

Chairman of Public Relations Committee Reinle read an additional report from Doctor Harris, relative to legislative activities to be carried on in connection with the Public Relations Department.

#### 19. Recess:

At this point, the Council recessed for luncheon.

#### 20. Call to Order:

After the noon recess, the Council was called to order by Chairman Schaupp.

#### 21. Committee on Public Health Education:

Chairman Schaupp stated that, in accordance with Resolution No. 6 of the House of Delegates, he had named five members who would serve with the two members named in the resolution; the committee membership to be as follows: Samuel Ayres, Jr., Los Angeles; J. B. Harris, Sacramento; Dewey R. Powell, Stockton; Thomas A. Card, Riverside; Frank R. Makinson, Oakland; Karl L. Schaupp, Chairman of the Council, San Francisco; Lowell S. Goin, Speaker, Los Angeles; and ex officio, Charles A. Dukes, President.

#### 22. Needy Members:

President Dukes stated that, in accordance with Resolution No. 11 of the House of Delegates, he had named for the Committee on Needy Members: Axcel E. Anderson, Fresno, chairman; Elizabeth Hohl, Los Angeles; and Robert A. Peers, Colfax.

#### 23. Medical Supplement to a Newspaper:

A representative of a San Francisco newspaper discussed a proposed medical supplement to its June 17 issue. Action taken by the Council was reconsidered later. Detailed reports have been placed in the Central Office files.

#### 24. [See Item 46 (Addendum).]

#### 25. California Academy of Medicine:

A letter was presented from Russell V. Lee of Palo Alto asking a commitment from the Association on the matter of publication of papers of the California Academy of Medicine in *CALIFORNIA AND WESTERN MEDICINE*. Secretary Kress reported on the space and cost elements, and the large number of annual session papers submitted by members of the California Medical Association, which could not be accepted because of lack of space.

It was moved by George Reinle, seconded by Louis Packard, that the Council was in accord with the opinion that such a commitment could not be given.

#### 26. Nevada State Medical Association:

The Secretary reported on the present status of subscriptions to members of the Nevada State Medical Association. The Council approved the continuation of the special subscription price of \$3 per member per year, for each member of the Nevada State Medical Association, this being a reduction of \$2 from the regulation subscription price, and being the same as that charged to members of the California Medical Association.

#### 27. Complimentary Journals:

Editor Kress reported that, in line with action taken several years ago by the Council, a total of 165 delegates and officers of the American Medical Association were on the complimentary list, at a cost to the California Medical Association of almost \$500 yearly, and asked for instructions whether the Council wished to continue the plan.

It was moved by Charles A. Dukes, seconded by E. J. Best, that the names of delegates and officers of the American Medical Association be removed from the complimentary list of the *JOURNAL*. Carried.

#### 28. Subscription Price of California Medical Association Members for California and Western Medicine:

The Editor called the attention of the Council to the United States postal regulations requiring a subscription price to *CALIFORNIA AND WESTERN MEDICINE*; and that the last subscription price levied by the Council on September 5, 1935, was \$3 per member, or an asset credit to the Official Journal of about \$18,000 yearly. It was also stated that, in years prior to the report given in *CALIFORNIA AND WESTERN MEDICINE* of May, 1935, it had been the custom in annual financial reports to indicate the total subscription allocation so received as income to the Official Journal; but that thereafter, the subscription price had not been indicated in the annual financial reports, thus creating an apparent rather than a real deficit. The Editor asked the Council to indicate again the amount of a subscription price to be placed in the financial records, to comply with the postal regulations.

It was moved by Charles A. Dukes, seconded by George D. Maner, that \$3 be allocated from the dues per member per year as the subscription price of California Medical Association members for *CALIFORNIA AND WESTERN MEDICINE*, and that the subscription price to nonmembers (exclusive of members of the Nevada State Medical Association) be \$5 per year. Carried.

#### 29. Del Monte Annual Session:

The Secretary reported that income from the technical-commercial exhibits at the annual session at Del Monte, May 1 to 4, 1939, amounted to \$5,375, being the largest income received to date at any annual session. The expenses of the session amounted to \$3,415.04 (including major items such as booth construction and hotel, \$581.24; tent rental, \$240; guest-speaker expenses, \$674.54; electric recorder for House of Delegates and general sessions, \$333.80; Woman's Auxiliary, \$200; expenses of legal staff, \$115.55; and daily convention bulletin, \$97.85). The net profit, therefore, on the Del Monte annual session approximated \$2,000.

#### 30. Dates of 1940 Annual Session:

Discussion was had of the date of the 1940 annual session at Coronado.

It was moved by Charles A. Dukes, seconded by A. E. Anderson, that the date of the annual session at Coronado be set as Monday, May 6, to Thursday, May 9, 1940. Carried.

#### 31. Arrangements Committee:

Attention was called to the need of appointing the local Committee of Arrangements for the next annual session to assist the Association Secretary. Dr. C. O. Tanner of San Diego was appointed chairman of the local Committee on Arrangements for the 1940 annual session at Hotel Coronado, Coronado, with power to select the other members of the local committee.

#### 32. Basic Science Act:

The Special Committee on a Basic Science Act, through its chairman, Doctor Kress, submitted a report, calling attention to the several actions of the House of Delegates authorizing the placement of a basic science act on a state election ballot. The Special Committee suggested that it be now discharged, its records to be turned over to a new committee that would proceed with a final redraft to be placed on the November, 1940, state election ballot.

It was moved by C. A. Dukes, seconded by Louis Packard, that the report of the Chairman of the Committee on the Basic Science Act be accepted and that, in accordance with the suggestion of the Chairman, the Committee be discharged and the work of studying the drafts that had been made, and of preparing a redraft, and outlining other lines of procedure, be turned over to the Committee on Public Relations. Recommendation was accepted and it was voted to discharge the Special Committee, with thanks for its past services.

**33. Works Progress Administration:**

The Secretary presented a report on his conference with Mr. Bartle M. Harvey of the Works Progress Administration (Northern California district of fifty counties), asking coöperation of the State Medical Association in efforts to secure an equitable distribution of the professional work among physicians who were on the WPA panel.

It was moved by Harry Wilson, seconded by A. E. Anderson, that the matter of coöperation with the Works Progress Administration be referred to the Department of Public Relations. Carried.

**34. Cancer Exhibit:**

Association Secretary Kress stated that, in accordance with authority granted by the Council to the special committee of which Dr. T. Henshaw Kelly was chairman, an exhibit on cancer had been installed at the Golden Gate International Exposition, at an estimated cost of \$5,000; and that at the present time a balance of \$20 remained in the Herzstein Bequest, from which the exhibit was to be financed. It would, therefore, be necessary for the Special Committee to call upon the Association for the remaining funds, in accordance with the Council authority given on October 1, 1938; such additional money to be a loan, and to be repaid to the California Medical Association as additional moneys accrued in the Herzstein Bequest.

The advantage of an attendant to explain the exhibit was discussed, but no action was taken thereon.

**35. Stereopticons:**

Upon recommendation of the Association Secretary, it was moved by E. J. Best, seconded by Henry S. Rogers, that the Pacific Coast Oto-Ophthalmological Society be granted the use of the stereopticon lanterns of the California Medical Association, in accordance with the stipulations laid down for their use and return. Carried.

**36. Kern County:**

Doctor Packard reported on the outcome of the *Joe Smith vs. Kern County Medical Society* case, stating that the right to expel Doctor Smith had been upheld by Judge R. B. Lambert of the Kern County Superior Court, in an opinion handed down on May 9, 1939.

**37. Special Expense:**

The report on some expenses in connection with certain special activities was accepted and placed in the files.

**38. County Society Hearing:**

A report on a county society hearing, at which Doctor Allan Bramkamp of Banning officiated as referee, was received and placed in the files.

**39. Collection Agencies:**

A letter from the Doctors' Business Bureau regarding collection agencies was presented. The letter was referred to the Committee on Public Relations.

**40. Committee Intercommunication:**

The Pacific Telephone's new method of intercommunication between committeemen in different cities, all listening at the same time, was explained to the Council. No action taken.

**41. Special Assessment:**

The question of status of members who failed to pay the special assessment within the time specified was discussed.

Doctor Maner stated he would send a letter containing his questions to legal counsel, Mr. Peart.

**42. Wagner Bill:**

A letter, regarding the dangers to scientific medicine and the public health from the so-called Wagner Bill, Senate 1620, was read.

It was moved by Charles A. Dukes, seconded by A. E. Anderson, that a committee, consisting of Doctors Best

and Kress and Mr. Peart, draw up suitable resolutions in the name of the Council, to be sent to Senators and Representatives in the United States Congress, and that the Secretary be instructed to communicate with component county societies and request that they do likewise. Carried.

**43. California Society for the Promotion of Medical Research:**

P. K. Gilman presented a letter from the California Society for the Promotion of Medical Research, calling attention to the fact that the organization had been notified by the Government that its activities and expenditures had made it liable for taxation under the State Unemployment and Federal Social Security Acts. The amount of the tax would be about \$300. At the present time the Society, which had played a prominent part in the antivivisection campaign, was inactive and without funds. To attempt to collect from members would mean a great hardship and much work.

It was moved by Charles A. Dukes, seconded by C. O. Tanner, that the California Medical Association contribute \$300 to the California Society for the Promotion of Medical Research. Carried.

**44. Committee on Public Policy and Legislation:**

Further discussion was had of the recommendation contained in the written report submitted by Doctor Harris, on future plans for carrying on the work of the Committee on Legislation and Public Policy.

It was moved by Lowell Goin, seconded by E. J. Best, that the Committee on Public Policy and Legislation be authorized to employ a paid secretary or field secretary or representative.

Doctor Dukes offered the following substitute resolution, which was accepted by Doctors Goin and Best: Moved, that we approve in principle the recommendations contained in the report of Doctor Harris.

A vote was taken on the substitute motion. Carried.

**45. Adjournment:**

There being no further business to come before the Council, the meeting adjourned.

KARL L. SCHAUPP, *Chairman.*  
GEORGE H. KRESS, *Secretary.*

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**ADDENDUM**

46. (Refers to Item No. 23.) A mail vote to reconsider action taken under item 23 was taken on June 6, 1939. Reconsideration vote resulted in decision not to place an announcement in a newspaper.

KARL L. SCHAUPP, *Chairman.*  
GEORGE H. KRESS, *Secretary.*

## COMMITTEE ON PUBLIC HEALTH EDUCATION

### Minutes of the First (1st) Meeting of the Committee on Public Health Education

**1. Call to Order:**

The meeting was called to order by Karl L. Schaupp at the Sutter Club, Sacramento, California, at 11 a. m., Sunday, June 11, 1939.

Present were: Thomas A. Card, Riverside; Frank R. Makinson, Oakland; Junius B. Harris, Sacramento; Dewey R. Powell, San Joaquin; and Karl L. Schaupp, San Francisco.

Absent: Lowell S. Goin, Los Angeles; Samuel Ayres, Jr., Los Angeles; Charles A. Dukes, Oakland, ex officio.

**2. Organization of Committee:**

On nominations by Dewey R. Powell, Frank R. Makinson was elected chairman of the committee, and Karl L. Schaupp was elected secretary of the committee.



### 3. Depository:

On motion duly made, seconded and carried, the suggestion of the Secretary of the Association, that the American Trust Company of San Francisco be named as the depository for funds received from the special assessment, was approved.

On motion duly made, seconded and carried, the name of the account to carry the assessment funds was designated as "C. M. A. Assessment Fund."

### 4. Bills of Committee:

On motion duly made, seconded and carried, the Chairman and the Secretary of the Committee were authorized to approve bills of the Committee, for submission to and payment through the Auditing Committee of the California Medical Association.

### 5. Correspondence Re Assessment:

The Committee felt that action on letters of commendation, criticism, and legal questions regarding the assessment fell within the jurisdiction of the Council of the California Medical Association, and action by the Committee was inadvisable.

### 6. Newspaper Publicity:

The Committee was in accord with the Council's action concerning a proposal for advertising in newspapers.

### 7. Committee on Public Policy and Legislation:

(a) The Committee recommends to the Council of the California Medical Association that the recommendations of the Chairman of the Committee on Public Policy and Legislation, as submitted at the June 3rd Council meeting, and at this meeting be approved, and that the present standing Committee on Public Policy and Legislation be designated as the "Executive Group" of the Committee on Public Policy and Legislation, with the accepted powers and duties of an executive group.

(b) The Committee on Public Health Education interprets its instructions to include the following duties: (1) aiding and assisting the work of the Committee on Public Policy and Legislation in policies regarding our economic and political situation, and (2) carrying on a program of education in public health welfare.

(c) The Committee recommends to the Council that the previous allocation of dues from the general funds of the California Medical Association to the Committee on Public Policy and Legislation be continued.

(d) The Committee recommends to the Council that the budget of the Committee on Public Health Education include an item providing for allocation to the Committee on Public Policy and Legislation of \$500 monthly, and that any necessary additional requirements be covered by special allocation as occasion arises.

### 8. Public Relations Counsel:

The matter of employment of a Public Relations Counsel was discussed at length, and the names and recommendations of applicants for this position were presented. Conference was held with Mr. Ross Marshall of San Francisco in an effort to determine the probable scope and cost of a publicity campaign.

It was moved by Dewey Powell that the Chairman and the Secretary hold an informal meeting in San Francisco with Doctors Reinle, Dukes, Kress, Kilgore, and Mr. Marshall as soon as possible to discuss certain plans for future procedure. Carried.

### 9. Adjournment:

There being no further business, the meeting adjourned.

FRANK R. MAKINSON, *Chairman*.

KARL L. SCHAUPP, *Secretary*.

## EXECUTIVE COMMITTEE

### Minutes of the One Hundred and Fifty-Sixth (156th) Meeting of the Executive Committee of the California Medical Association

Held in the offices of the Association, Room 2004, 450 Sutter Building, San Francisco, Saturday, June 17, 1939, at 9 a. m.

#### 1. Call to Order:

The meeting was called to order by Chairman P. K. Gilman with the following members present: President Charles A. Dukes, Chairman of Council Karl L. Schaupp, Chairman of Executive Committee P. K. Gilman, Chairman of Committee on Public Relations Committee George G. Reinle, Secretary-Editor George H. Kress, General Counsel Hartley F. Peart and his associate, Mr. Howard Hassard.

Absent: President-Elect Harry H. Wilson, Past President William W. Roblee, and Speaker Lowell S. Goin.

#### 2. Committee on Public Health Education:

Council Chairman Karl L. Schaupp explained why the meeting of the Executive Committee had been called on short notice, namely, that it would be possible to secure a quorum with other members present at the Committee on Public Relations meeting; and that it was the desire to present a report so that a mail vote of the Council might be taken on suggestions having to do with the plans of the Committee on Public Health Education.

Doctor Schaupp then reported on the activities of the Committee on Public Health Education as embodied in the minutes of the first meeting of the Committee, held at Sacramento, Sunday, June 11, 1939.

He stated that, in accordance with the instructions of the Committee on Public Health Education given at Sacramento, an informal meeting had been held on Thursday, June 15, 1939, at which Doctors Makinson, Dukes, Reinle, Schaupp, Kilgore, Kress, and Mr. Marshall had been present; and at which time discussion was had of the possible use of the services of Mr. Ross Marshall's organization as public relations counsel, jointly for the California Medical Association and the California Physicians' Service. Doctor Schaupp stated that the Committee on Public Health Education felt that the employment of Mr. Marshall under the plan outlined in Mr. Marshall's letter of June 14, 1939, should be presented to the Council for its consideration.

It was moved by Charles Dukes, seconded by George G. Reinle, that the suggestion of the Committee on Public Health Education regarding employment of public relations counsel, as outlined by Doctor Schaupp, be recommended to the Council for its consideration, through a mail vote to be authorized by Council Chairman Schaupp. Carried.

#### 3. Adjournment:

There being no further business, the meeting adjourned.

P. K. GILMAN, *Chairman*.

GEORGE H. KRESS, *Secretary*.

## A RECENT LEGAL OPINION: IN RE MEMBERSHIP RIGHTS

*Copy of an Opinion Rendered by Judge Robert B. Lambert of the Kern County Superior Court*

(In the case in which Joe Smith, M. D., was seeking reinstatement of membership in the Kern County Medical Association. Judge Lambert denied the relief sought.)

(COPY)

Tuesday, May 9, 1939. Court Met at 10 a. m.  
Department No. 2

Joe Smith, M. D., vs. 31,001, Kern County Medical Association, et al.

It is ordered that plaintiff take nothing and defendant have judgment for costs. Findings and judgment to be prepared by attorney for defendant. (It appears that plaintiff was expelled according to the constitution and by-laws of the Association, the provisions of which are binding on the member and association alike. The relation of a member with the Association is purely contractual and a member assumes the burdens as well as the benefits, if any. The Court cannot inquire into the reasonableness or unreasonableness of the Association's requirements. The conspiracy charge must fail, because it is not a conspiracy for a citizen or any number of citizens to disagree with the legislative policy of county officials. And which policy is best for the county is not in anywise material here. Nor is the right to practice medicine involved.)

ROBERT B. LAMBERT,  
*Judge of Superior Court.*

## C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

### COMMITTEE ON PUBLIC RELATIONS

#### Minutes of the Committee on Public Relations of the California Medical Association

Held in the offices of the Association, Room 2004, 450 Sutter Building, San Francisco, Saturday, June 17, 1939, at 10 a. m.

#### 1. Call to Order.

The meeting was called to order by Chairman Reinle, with the following members present: President Charles A. Dukes; and the chairmen of the following committees: Roy E. Thomas, Committee on Health and Public Instruction; J. Norman O'Neill, Committee on Hospitals, Dispensaries, and Clinics; Donald Cass, Committee on Industrial Practice; George G. Reinle, Committee on Medical Defense; George D. Maner, Committee on Membership and Organization; Dwight L. Wilbur, Committee on Post-graduate Activities; George H. Kress, Secretary-Editor. General Counsel Hartley F. Peart and his associate, Mr. Howard Hassard, were also present.

Absent: President-Elect Harry H. Wilson; Past President William W. Roblee; Speaker Lowell S. Goin; and the chairmen of the following committees: Alson R. Kilgore, Cancer Commission; J. B. Harris, Committee on Public Policy and Legislation; John H. Graves, Committee on Medical Economics.

#### 2. Minutes of Committee.

The minutes of the meeting of the Committee on Public Relations, held August 27, 1938, on motion of Charles A. Dukes, and duly seconded, were approved.

#### 3. Report of Committee.

George G. Reinle submitted a report on future work of the Committee on Public Relations, in which it was suggested that special consideration be given to the proposed chiropractic initiative and a basic science law.

#### 4. Election of Chairman.

Doctor Dukes stated that nominations for chairman of the Committee of Public Relations were in order.

Dwight L. Wilbur nominated George G. Reinle as chairman of the Committee on Public Relations for the ensuing

year. The nomination was seconded by Roy Thomas. There being no further nominations, the Secretary cast the ballot of the Committee for Doctor Reinle. Doctor Reinle then took the chair.

#### 5. Basic Science Act.\*

Discussion was had of the proposed Basic Science Act for California.

George H. Kress, former chairman of the Committee on the Basic Science Act, outlined the work that had been done in the past and submitted a tentative draft that had been prepared by the Special Committee. The Committee agreed that an immediate study of forms of basic science laws should be made, in order that a draft suitable for California's needs could be prepared, to be submitted to the Council and then used as conditions might indicate.

After discussion of various phases of basic science legislation, upon motion duly made and seconded, it was voted that two committees be appointed by the chairman: one to take charge of the study of drafts for the Bay region, and the other for the southern section of the state.

Chairman Reinle appointed as the two subcommittees: Dr. Dwight L. Wilbur, Chairman, with Dr. Charles A. Dukes; Dr. Donald Cass, Chairman, with Dr. J. Norman O'Neill.

Association Secretary Kress, whose special committee had submitted two tentative drafts of basic science laws to the California Legislature in previous years, stated he would send to each subcommittee copies of previous drafts and reports thereon by the legal counsels of the American Medical Association and California Medical Association.

#### 6. Collection Agencies.

A letter regarding unreliable collection agencies was presented.

On motion of Charles Dukes, seconded by George Maner, the communication was ordered filed.

#### 7. Professional Organizations.

Doctor Kress presented correspondence regarding the plan in Oregon for the organization of all professions. It was felt that a state-wide organization was not advisable at the present time, but that local organizations to engender good-fellowship might be instituted.

It was moved by George Maner, seconded by Charles Dukes, that the Director write to the secretaries of the various county societies suggesting that their respective units consider the formation of such contacts. Carried.

#### 8. Chiropractic Initiative.

The proposed Chiropractic Initiative for which sufficient signatures had been secured to qualify it for placement on the next state election ballot, was discussed. . . .

#### 9. Works Progress Administration.

Mr. Bartle M. Harvey of the Works Progress Administration appeared before the Committee to request the co-operation of the California Medical Association in an effort to work out a more equitable distribution of medical work on WPA projects. Mr. Harvey read excerpts from the new regulations intended to govern WPA medical care. He stated that at the present time they were using the panel system that had been inaugurated with the coöperation of the California Medical Association in 1932. Mr. Harvey added that he had been instructed to submit to the California Medical Association a request that it appoint a committee of one or more, whose members would, each month, make an inspection of medical work that had been performed, so that an equitable distribution might be secured.

It was moved by Charles Dukes, seconded by George Maner, that the Director of the Department of Public Relations, Doctor Kress, be appointed to care for such paper work as may be necessary until the Council makes further recommendation. Carried.

Doctor Maner pointed out that in the southern part of the state the matter was being handled through local organizations; and it was agreed that, in case final interpretation should be made, the matter had to be handled in the same

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman, and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

\* For Council action regarding Basic Science Act see Item 32, on page 46.



by one central organization, and that county societies should agree as to the individual who would represent them. Doctor Maner was instructed to report on the southern set-up at the next meeting of the Committee.

#### 10. Public Relations Counsel.

A letter dated June 14, 1939, regarding the possible use of Ross Marshall's public relations organization, was read for the information of the Committee.

#### 11. Malpractice Insurance.

George Reinle, Chairman of the Committee on Medical Defense, called the attention of the Committee to the desirability of taking up anew the problem of malpractice insurance. It was the opinion that a careful study should be made of the various aspects of this important problem.

#### 12. State and County Fairs as Media for Public Health Publicity.

The Association Secretary called attention to the great possibilities of state and county fairs as a means of carrying on public health education of broad scope, through exhibits, films, and talks.

It was moved by George Maner, seconded by Charles Dukes, that the Committee on Public Relations recommend to the Committee on Public Health Education that the matter of education of the public through utilization of facilities at state and county fairs be placed on the docket of its next meeting. Carried.

#### 13. Care of the Indigent and Near-Indigent in County Hospitals.

The desirability of obtaining information on gratuitous care rendered indigent citizens through county hospitals and philanthropic clinics was discussed.

On motion duly made, seconded and carried, the Director of the Department of Public Relations was instructed to secure information from attending staffs and other groups supplying care for indigent and near-indigent citizens, so that the Association may have this information on file.

#### 14. Adjournment.

There being no further business, the meeting adjourned.

GEORGE G. REINLE, *Chairman*.

GEORGE H. KRESS, *Secretary*.

### TULARE COUNTY MEDICAL SOCIETY: A PRESS ANNOUNCEMENT

The *Visalia Times-Delta* of Tulare County on May 26 printed an anniversary edition, and the Tulare County Medical Society was represented therein, with a statement that is not without interest. The items listed under "Seven Wonders of Medical Science" are those enumerated in an article by Professor A. C. Ivy of Northwestern University, which appeared in *CALIFORNIA AND WESTERN MEDICINE*, in December, 1934. The *Visalia Times-Delta* announcement, illuminated by a linecut of the caduceus, is given below.

GREETINGS TO THE CITIZENS OF TULARE COUNTY FROM THE  
TULARE COUNTY MEDICAL SOCIETY

Good Wishes, Too, to *Visalia Times-Delta* for its Consistent  
Service to the Community

On the occasion of this anniversary edition of the *Visalia Times-Delta* the members of the Tulare County Medical Society avail themselves of the opportunity to call the attention of their fellow citizens to some of the achievements in scientific medicine, and to point out some trends in medical practice.

Since the year 1911 the average span of human life in the United States has increased from fifty-three years to beyond sixty years. This means that more than thirteen million people, alive in our country today, would be dead if the life span of the year 1911 still obtained.

This increased life expectancy has been due in very large part to the application of medical discoveries. One hundred years ago the average length of human life was only thirty years. It has been during the last one hundred years that the important discoveries in scientific medicine have been made.

These discoveries, given freely and without cost to the world, have permitted all communities to institute proper measures of protection in preventive and public health systems. These medical discoveries have been called the "Seven Wonders of Medical Science," as follows:

1. Anesthesia and Analgesia. These make many operative procedures possible and, in addition, give relief from pain.

2. The Germ Causes of Certain Diseases. Through the discoveries about germ diseases the world has been able to conquer cholera, plague, yellow fever, typhoid and other diseases from which thousands of people formerly died.

3. Immunity Treatment for Certain Diseases. Here are included former scourges such as smallpox, diphtheria, lockjaw, rabies.

4. Antisepsis and Asepsis. These make possible the use of protective measures to prevent blood poisoning and aid in the prevention of dangerous and possibly fatal contamination of operative wounds.

5. Increased Knowledge of Physiology. This knowledge of natural activities, often with the added use of x-ray, permits physicians to recognize abnormal states in the form of disease.

6. Organotherapy. This is knowledge of the secretions of internal organs and their use in the treatment of diseases such as diabetes, pernicious anemia, cretinism.

7. Animal Nutrition and Vitamins. They are of importance in general growth and development and in the prevention of many diseases like rickets, scurvy, polyneuritis, and pellagra.

An examination of the above list must convince any unprejudiced observer of the generous service rendered to the world by scientific medicine. Doctors of medicine are naturally proud of this record and believe their fellow citizens have the same feeling.

All of these accomplishments were not the result of orders sent out by some director of a bureau of socialized medicine or from some office of a compulsory health insurance organization.

Times of economic stress and strain nearly always manifest themselves in social unrest. In periods of social unrest all kinds of schemes are put forward to solve real and imaginary problems. It is mighty important that we, the American people, go behind medical proposals and find out for ourselves what they really involve, and how they will work out in practice.

The compulsory health insurance system, proposed now for the State of California, is modeled after the German system, brought into being in 1883 by Bismarck to combat the increasing socialistic movement among the poor, and for somewhat similar reasons, instituted for England by Lloyd George in 1911. In both countries the care of the poor, up to the time of the above systems, was deplorable and anything was better than what they had had.

In America the care of the sick poor has not been deplorable because everywhere it is practically possible for those who wish and ask for it to secure adequate medical service in either home or adjacent communities.

It is significant that sickness and death rates in Germany and England have been (and in spite of their years of experience with compulsory health systems) and continue higher than those of the United States.

Everywhere the great majority of doctors of medicine are opposed to compulsory health systems because they feel sure the standards of medical practice will be made worse instead of better, and that the individuals who will suffer most under such a mechanized system will be the very persons most in need of medical care. Americans still wish to be independent citizens with the right to choose their own doctors. Compulsory health systems are forms of governmental paternalism run wild, not adapted to the living standards or spirit of America.

Voluntary health insurance and group hospitalization have met with amazing success. We have learned that when medical societies and laymen cooperate to establish plans for spreading the cost of medical care that the dangers of compulsory health insurance and state medicine can be averted.

The indigent and groups unable to pay for indemnity insurance should be cared for by private practitioners, with the financial assistance only of local, state, or federal government. For the lower middle class and the middle class, adequate medical care should be made available through group hospitalization and voluntary medical indemnity insurance. The upper middle class and the wealthy should continue to purchase medical care on the present individual basis. In this way any patient may obtain the services of the doctor of his choice.

To make possible medical care and hospitalization, on a periodic payment basis, for the citizens who prefer that method, there has come into being California Physicians' Service, sponsored by the California Medical Association. At an early day the Tulare County Medical Society hopes to bring the advantages of California Physicians' Service to the attention of the citizens of Tulare County.

# **HOW ASSEMBLYMEN VOTED ON THE PROPOSED COMPULSORY HEALTH LAW (ASSEMBLY BILL 2172): WHEN IT WAS DEFEATED ON JUNE 13, 1939**

On Tuesday afternoon, June 13, almost a month after the initial vote try-out on amendments, recorded on page 448 of the June issue of CALIFORNIA AND WESTERN MEDICINE, the proposed compulsory health insurance law was again given place on the Assembly calendar, as a special order.

The final vote, recorded below, shows that forty-eight Assemblymen voted against Assembly Bill 2172, that is, voted against compulsory health insurance; and twenty voted in favor of Assembly Bill 2172, that is, cast their ballots in favor of instituting the compulsory health system. Physicians, as such, and as citizen taxpayers, have a natural interest in the issues involved. It is suggested that the component county societies and their members give careful consideration to the information here appended.\*

\* For other Items, see pages 6 and 62.

## **"No" Votes (Assemblymen Supposedly Not in Favor of a Compulsory System: Voted "No" on A. B. 2172)**

Name	Occupation	Party	Dist.	Home Address
Allen, Don A.	Engineer	D	63	1646 W. 29th St., Los Angeles
Bashore, Lee T.	Rancher	R	49	250 Live Oak, Glendora
Burns, Hugh M.	Funeral Director	D	36	2055 San Joaquin St., Fresno
Burns, Michael J.	Master Mechanic	R	1	1644 Summer St., Eureka
Burson, Roscoe W.	Farmer	R	40	Fillmore
Call, Harrison Wm.	Attorney	R	29	Eaton Dr., Redwood City
Carlson, Arthur W.	Attorney	R	16	Piedmont
Cassidy, James M.	Manufacturer's Representative	D	13	1520 Eighty-ninth Ave., Oakland
Clarke, George A.	Farmer	R	33	Rt. 1, Box 54, Le Grand
Corwin, Gordon W.	Citrus Grower	R	73	749 Chestnut Ave., Redlands
Cronin, Melvyn I.	Attorney	R	25	1424 Fifth Ave., San Francisco
Daley, Jeanette E.	Contractor	D	78	4430 Boundary St., San Diego
Desmond, Earl D.	Attorney-Farmer	D	9	2022 Twenty-second St., Sacramento
Dilworth, Nelson S.	Farmer	R	76	119 N. Buena Vista St., Hemet
Field, C. Don	Trucking Contractor	R	43	1552 Rideway Dr., Glendale
Fulcher, Clinton J.	Garage	D	2	Lookout
Gallagher, Dan	Drayman	D	23	1670 Folsom St., San Francisco
Gannon, Chester F.	Attorney	D	8	3543 H St., Sacramento
Garland, Gordon H.	Citrus Grower-Farmer	D	38	Woodlake
Gilmore, Joseph P.	Secretary	D	21	442 Excelsior Ave., San Francisco
Green, Robert Miller	Attorney	R	28	214 Nineteenth Ave., San Francisco
Houser, Frederick F.	Attorney	R	53	19 W. Pine St., Alhambra
Johnson, Gardiner	Attorney	R	19	765 San Luis Rd., Berkeley
Kepple, Gerald C.	Attorney	R	50	1952 Valley View, Whittier
Knight, T. Fenton	Rancher	R	48	Rt. 1, Box 390, La Canada
Kuchel, Thomas H.	Attorney	R	75	Bank of America Bldg., Anaheim
Leonard, Jacob M.	Commercial Secretary	R	34	Hollister
Lyon, Charles W.	Attorney	R	59	1052 S. Redondo Blvd., Los Angeles
Maloney, Thomas A.	Insurance	R	20	350 Missouri St., San Francisco
Miller, Eleanor	Teacher	R	47	251 S. Oakland Ave., Pasadena
Millington, Seth	Lawyer	D	4	Gridley
O'Donnell, John H.	Attorney	D	3	608 Cleveland St., Woodland
Phillips, James H.	Attorney	R	18	27 Contra Costa Pl., Oakland
Poulson, Norris	Certified Public Accountant	R	56	3729 Tracy St., Los Angeles
Redwine, Kent H.	Attorney	R	57	1618 N. Las Palmas Ave., Los Angeles
Salsman, Byrl R.	Attorney	R	30	1861 Fulton St., Palo Alto
Sawallisch, Harold F.	Attorney	D	10	437 Fifteenth St., Richmond
Scudder, Hubert B.	Insurance-Real Estate	R	7	506 S. Main St., Sebastopol
Sheridan, Bernard A.	Attorney	R	15	2314 Mitchell St., Oakland
Stream, Charles W.	Real Estate-Insurance	R	80	P. O. Box 21, Palm City
Thorp, James E.	Farmer	R	12	Lockeford
Thurman, Allen G.	Newspaperman	R	6	Colfax
Walker, Clarence R.	Farmer	R	77	Westmorland
Waters, Frank J., Jr.	Lawyer	R	58	1163 Fourth Ave., Los Angeles
Watson, Clyde A.	Orange Grower	D	74	273 N. Harwood St., Orange
Weber, Charles M.	Civil Engineer-Farmer	R	11	300 First National Bldg., Stockton
Weybret, Fred	Retired	R	35	Star Route, Soledad
Wollenberg, Albert C.	Attorney	R	27	2748 Steiner St., San Francisco

## **"Aye" Votes (Assemblymen Supposedly in Favor of a Compulsory System: Voted in Favor of A. B. 2172)**

Name	Occupation	Party	Dist.	Home Address
Atkinson, Maurice E.	Journalist	D	70	906 Obispo Ave., Long Beach
Bennett, F. Ray	Attorney	D	51	5041 Gafford St., Los Angeles
Collins, George D., Jr.	Attorney	D	22	1456 Union St., San Francisco
Del Mutolo, M. G.	Attorney	D	31	1731 Glen Una Way, San Jose
Dills, Ralph C.	Teacher	D	69	1505 N. Spring St., Compton
Doyle, Thomas J.	Business Manager- Retired Ry. Conductor	D	45	4333 Griffin Ave., Los Angeles
Hawkins, Augustus F.	Business	D	62	719 E. 43d Place, Los Angeles
Heisinger, S. L.	Farmer-Poultryman	D	37	Rt. 4, Box 90E, Fresno
Kilpatrick, Vernon	Publisher	D	55	1116 S. Flower St., Los Angeles
King, Cecil R.	Merchant	D	67	1152 W. 88th St., Los Angeles
Massion, Jack	Druggist	D	66	846 E. 77th St., Los Angeles
Miller, George P.	Civil Engineer	D	14	1424 Benton St., Alameda
Peek, Paul	Attorney	D	71	2363 Pine Ave., Long Beach
Pelletier, John B.	Research	D	44	248 S. Olive St., Los Angeles
Reaves, Fred	Engineer	D	68	964 Tenth St., San Pedro
Richie, Paul A.		D	79	4264 Menlo Ave., San Diego
Rosenthal, Ben	Attorney	D	52	1924 E. 4th St., Los Angeles
Voigt, Ernest O.	Real Estate	D	61	3651 Cardiff Ave., Los Angeles
Williamson, Ray	Attorney	R	26	41 Roselyn Terrace, San Francisco
Yorty, Samuel William	Manufacturing	D	64	463 S. Lake St., Los Angeles



## CALIFORNIA PHYSICIANS' SERVICE\*

### Informative Bulletins

#### BULLETIN I

California Physicians' Service will offer coverage to the public in groups before the end of this month. This statement is indicated by progress reports of the vast amount of detail necessary to set up this state-wide organization. While the technical set-up to handle the thousands of anticipated accounts has been developed in recent weeks, the business department has been contacting employee groups, one of which is to be the first signatory to a California Physicians' Service contract.

An early meeting of the trustees will pass upon the suggested accounting system; upon the fee schedules—which are about completed—and the boundaries of the twenty-one medical administrative districts into which the state has been divided for the purpose of administering California Physicians' Service. The districts, which will be submitted to the trustees for adoption, will each be under the direction of a deputy medical director. At present they are outlined as follows, this tentative outline representing the advice of professional members.

District No. 1—San Francisco, San Mateo, and Marin counties.

District No. 3—Alameda, Contra Costa.

District No. 5—Santa Clara, Santa Cruz.

District No. 7—Mendocino, Sonoma, Lake, Napa, Solano.

District No. 9—Humboldt, Del Norte.

District No. 11—Fresno, Merced, Mariposa, Mono, Inyo, Madera, Kings, and Tulare.

District No. 13—San Joaquin, Amador, Alpine, Stanislaus, Calaveras, and Tuolumne.

District No. 15—Sacramento, Sutter, Yuba, Sierra, Nevada, Placer, and Eldorado.

District No. 17—Glenn, Butte, Colusa, and Yolo.

District No. 19—Siskiyou, Trinity, Shasta, and Tehama.

District No. 21—Modoc, Lassen, and Plumas.

#### Southern California:

Districts Nos. 2, 4, 6, 8—Los Angeles County.

District No. 10—Orange.

District No. 12—San Luis Obispo, Santa Barbara, and Ventura.

District No. 14—San Diego, Imperial.

District No. 16—Kern.

District No. 18—Riverside, San Bernardino.

District No. 20—San Benito, Monterey.

Extreme care has been taken in selection of the deputy medical directors for the districts, and professional members have been given the opportunity to express their approval of those under consideration. A list of professional members will be published shortly, and at the same time a bulletin of instructions will be forwarded to each professional member, coincident with actual coverage of the public groups.

\* \* \*

#### BULLETIN II

July 1, 1939.

California Physicians' Service, during the five months of its active life, has made tremendous progress, a survey of its accomplishments reveals.

The coverage forms, or contracts, between California Physicians' Service and the beneficiary members, now are off the press and ready for use. Intensive investigation was necessary, and was made, before these forms were completed, in order to comply with the many technicalities of this phase of the Service.

The list of doctors for the booklet of professional members also is off the press and is being distributed.

Making out of certificates of membership for professional members has been completed and these certificates are being mailed to nearly 5,000 professional members.

California has been divided into twenty-one medical districts for purposes of administration of California Physicians' Service. Dr. Morton R. Gibbons, Sr., State Medical Director, and Dr. E. Vincent Askey, Assistant Medical Director, with the Trustees, will select deputy medical directors for each of the districts from the lists sent in from practically every district.

The general accounting system, another very technical part of California Physicians' Service, inasmuch as it must cover records of several hundred thousand beneficiary members and the services of about 5,000 doctors, has been worked out. Cards for the office records have been ordered.

The Trustees of California Physicians' Service realize that the professional members have been looking forward to an early start of California Physicians' Service and feel that if the professional members in general could visualize the tremendous mass of detail necessary before a start could be made, it would be appreciated that a great deal has been accomplished in a remarkably short period of time.

The question in which all professional members are most interested is, "When will service actually be offered to the public?"

The answer now can be given.

The answer is, "Service is now being offered—today."

California Physicians' Service is under way. Representatives of beneficiary groups are being welcomed at California Physicians' Service headquarters and negotiations are under way with some of these groups. The business department is in contact with other groups. These are employed groups. Service to the other classes of beneficiary members, contemplated by California Physicians' Service, will follow as soon as practicable.

602 Mills Building, 220 Montgomery Street,  
San Francisco.

## COUNTY SOCIETIES

### KERN COUNTY

The Kern County Medical Society held a regular meeting at the Mercy Hospital in Bakersfield on Thursday evening, May 18. Dr. Chester Mead presided.

Dr. L. A. Packard reported that to the Kern County Tuberculosis Association had been submitted a project which would require the coöperation of the Medical Society for finding of the early cases of adult tuberculosis and tuberculin testing of the preschool child. Doctor Packard moved that in the event the project was approved by the Executive Board of the Tuberculosis Association, the President appoint a committee to serve in an advisory capacity. The motion was carried.

Dr. William T. Grant of Los Angeles presented an instructive paper on the *Surgical Treatment of Epilepsy*. He outlined the diagnosis and medical treatment and then illustrated the results of surgical treatment by slides. In the surgical treatment he discussed cortical excision of scars, subtemporal decompression, sympathetic ganglionectomy, and removal of the carotid body. He cited the statistics of Penfield on the results of cortical excision in which 43 per cent of forty-four patients operated were cured, 32 per cent improved, and 25 per cent were not helped. The importance of the early diagnosis of epilepsy in children and following head injuries was stressed.

Doctor Grant's paper provoked much discussion. The meeting was then adjourned, following which refreshments were served.

C. S. COMPTON, Secretary.

\* Address: California Physicians' Service, 220 Montgomery Street, San Francisco. Telephone: EXbrook 3212. Manager, Dr. Allen Widenham.

## MONTEREY COUNTY

The regular meeting of the Monterey County Medical Society was held on June 8 at the El Camino Hotel, King City. Two motion pictures were shown on *Abdominal-Perineal Resection* and *Subtotal Gastrectomy*. The guest of honor was Dr. Dorus Brumwell of King City, who has practiced for fifty years in Monterey County.

HERBERT C. ARCHIBALD, *Secretary*.



## PLACER COUNTY

The Placer County Medical Society held its May meeting in the Freeman Hotel, Auburn, on Saturday evening, May 27. The meeting was called to order at eight o'clock by Dr. William M. Miller, President. The following members were present: Doctors Eveleth, Empey, Lundegaard, Padgett, Pedersen, Peeke, Peers, and Weddle.

The application of Dr. Frederick Harry Benteen of Grass Valley for membership was read for the second time and, on motion duly seconded, Doctor Benteen's application was unanimously accepted and he was declared a member of the Placer County Medical Society.

The following matters came before the Society:

1. A letter from Association Secretary Kress regarding application of a physician in the Placer County Medical Society territory for permission to retain his membership in the Alameda County Society. The members present endorsed the action of the Secretary giving permission for the physician to retain his present membership for a limited period of time.

2. Letters and telegrams between the President and Secretary and our representatives at the State Legislature concerning matters before the Legislature pertaining to public health. The members present voiced their appreciation of the manner in which our representatives have recorded their votes in the interests of public health and the high standards of medicine.

3. The proposed fee schedule of the California Physicians' Service as furnished to the delegates at the Del Monte meeting. The members of the Society who were present and who are professional members of the California Physicians' Service discussed the letter of A. W. Widenham, General Manager of the California Physicians' Service, relative to the districting of the northern part of the state.

4. Correspondence regarding the special assessment of \$10. A number of those present paid the \$10, and there seemed to be a unanimous endorsement of the action of the House of Delegates in levying the assessment.

5. The President and Secretary reported on their conference with Doctor Napier relative to the Public Health survey of the Placer Union High School and Placer Junior College, which survey was requested by the principal, Doctor Napier. The President and Secretary were instructed to continue the conferences.

6. The matter of a fee schedule affecting physicians and surgeons, when physicians are called upon to act as witnesses before a coroner's jury or before the superior court or in any other county matters, was discussed. The Secretary reported on a conference at which he, with President Miller and Vice-President Empey, was in consultation with one of the county officers, after which the Secretary wrote a letter bearing on the subject of fees. This letter was approved with one amendment.

It was the opinion of the members present that a meeting should be called for July at the Tahoe Tavern.

ROBERT A. PEERS, *Secretary*.



## SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held at Pete's Place, Valley Springs, on June 1.

The meeting was called to order by Dr. Ray Owens. The application of Dr. W. T. Auld for membership in the San Joaquin County Medical Society was favorably reported upon by the Admissions Committee. There being no objections from the floor, he was declared a member.

The petition of Dr. John C. Lynch for membership in the San Joaquin County Medical Society was submitted and referred to the Admissions Committee. The application of Dr. R. A. Buchanan for retired membership on account of sickness was presented. It was moved by Doctor Thompson, seconded by Doctor Boehmer, that the San Joaquin County Medical Society accept this petition and request retired membership from the California Medical Association.

A delightful time was had by all, refreshments being furnished by the Roma Winery and the Shewan-Jones Winery of Lodi. The Lodi members of the local society proved very gracious and capable hosts. No paper was presented at this meeting, its absence being more than made up by an instrumental and vocal duo and the prevailing good-fellowship.

G. H. ROHRBACHER, *Secretary*.



## SAN MATEO COUNTY

A meeting of the Board of Directors was held in the private dining room at Mills Memorial Hospital on May 24.

The Secretary announced that he had received a communication from A. W. Widenham, General Manager of the California Physicians' Service, requesting that the Society furnish him with names of members who would be acceptable as deputy medical directors in this district. . . .

There was brief discussion of the special assessment voted by the House of Delegates at the annual session at Del Monte. There was practically unanimous approval of the motives behind the assessment, and it was the opinion of the Board that every county society member be asked to whole-heartedly cooperate with the efforts of the California Medical Association in connection with the new public education program. . . .

J. GARWOOD BRIDGMAN, *Secretary*.



## VENTURA COUNTY

The regular monthly meeting of the Ventura County Medical Society was held at the Saticoy Club on April 11.

There were nineteen members present. Guests included Doctors Olds, Tonn, Green, Allen, Daley, Gilman, Bishop, Dudley, Tipton, and Conrad.

Doctor Olds spoke on the *Differential Diagnosis of Acute Perforating Ulcers of the Stomach and Duodenum*.

Doctor Smolt made a motion, seconded by Doctor Coffey, that a resolution be introduced at the House of Delegates to allow councilors' expenses. The motion carried.



The regular monthly meeting of the Ventura County Medical Society was held at the Saticoy Club on Tuesday, May 9.

There were twenty-four members present. Guests included Doctors H. F. Diedrich of Los Angeles, Dudley, Daley, and Bishop of the County Hospital, and Dr. Grace Thomas of the Camarillo State Hospital.

Doctor Diedrich spoke on *Abdominal Pain in Infants*. He discussed the causes and treatment of colic in detail.

A report of the Del Monte meeting of County Society secretaries was given by Doctor Morrison.

Doctor Osborn made a motion, seconded by Dr. L. Smolt, that a committee of five, including the President and the Secretary, be appointed to contact interested men and suggest names for district medical director and deputy district medical director. The following committee was appointed: Doctors Drace, Osborn, and Stoll.

A. A. MORRISON, *Secretary*.



## CHANGES IN MEMBERSHIP

## New Members (53)

*Alameda County*

Katherine S. Bishop Charles E. Mooser

*Imperial County*

William H. Haakinson

*Kern County*

Fred J. Crease C. B. Stockton

*Los Angeles County*

G. Edward Cassidy	Dominique G. Laberge
Herbert M. Coulter	Benjamin Levine
John E. Cummings	Helen E. Martin
Robert C. Donham	Joseph H. Patterson
Theodore M. Ebers	Clarence R. Pentz
Ameen Fareed	William A. Pettit
Morris L. Fink	Douglas W. Ritchie
William Paul Frank	Gordon Rosenblum
William R. Gibson	Mary Ada Ross
Joe Spangler Haskell	Elie Louis Touriel
J. Lawrence Hawkins	Walter Scott
Frank I. Horn	Ernest W. Townsend
John L. Jackson	Arthur J. Toy
Yacob K. Kelleyan	Fred E. Woods
Morton M. Kimura	

*Mendocino County*

H. O. Cleland

*San Bernardino County*

Elmer Otto Carlson

*San Diego County*

Anne B. Geiger

*San Francisco County*

F. Graham Evers	Clayton G. Lyon
James T. Fitzgerald	David G. Mason
M. Alice Grady	Guy H. Mize
Clement P. Kansora	Nicholas S. Pedersen
Otto F. Krebs	Alfred G. Spencer

*San Joaquin County*

William T. Auld

*San Luis Obispo County*

William Edwin Seiler

*Sonoma County*

Robert S. Quinn

*Stanislaus County*

J. Lyle Spellmann Warren N. Steele, Jr.

*Ventura County*

Edgar R. Sizer

## Transferred (7)

Ray L. Allison, from Los Angeles County to Riverside County.

C. A. Gregory, from Napa County to Sonoma County.

Bernard E. McGovern, from San Diego County to Los Angeles County.

Kirtland G. Parks, from Orange County to Los Angeles County.

Sheldon A. Payne, from Santa Barbara County to Los Angeles County.

Aaron J. Rosanoff, from Los Angeles County to Sacramento County.

Aaron Roth, from Los Angeles County to New York State Association.

## Resigned (2)

Albert K. Baldwin, from Los Angeles County.

Hannah J. Beatty, from Los Angeles County.

## In Memoriam

**Alden, Bertram Francis.** Died at San Francisco, May 14, 1939, age 66. Graduate of Cooper Medical College, San Francisco, 1894. Licensed in California in 1895. Doctor Alden was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.



**Deakin, Stanley McClure.** Died at Napa, June 1, 1939, age 53. Graduate of the College of Physicians and Surgeons, Los Angeles, 1912, and licensed in California the same year. Doctor Deakin was a member of the Napa County Medical Society, the California Medical Association, and the American Medical Association.



**Ferry, Francis C.** Died at Sawtelle, May 25, 1939, age 59. Graduate of the University of Southern California School of Medicine, Los Angeles, 1903. Licensed in California in 1909. Doctor Ferry was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.



**Kahn, Adolph James.** Died at Los Angeles, March 29, 1939, age 82. Graduate of Bellevue Hospital Medical College, New York, 1886, and licensed in California the same year. Doctor Kahn was a retired member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.



**Mohs, Oscar Kemper.** Died at San Francisco, June 11, 1939, age 47. Graduate of the University of California Medical School, San Francisco, 1920, and licensed in California the same year. Doctor Mohs was a member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

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*Frequent Check-ups After Age of 40 Are Imperative.*—Frequent structural check-ups after the age of 40 are imperative for the person who wishes to retain physical efficiency and vigor, Mrs. Miriam Townsend Sweeney, New York, declares in *Hygiea, The Health Magazine*.

"No person need fear the years after 40 if he will adapt and adjust himself to warning signals, check up on their portent and act accordingly," she maintains.

"During the forties certain structural changes often appear which, if disregarded, are likely to become well established at 50. Heads, necks and shoulders begin to droop; chests tend to become depressed; stomachs protrude; backs round over above or cave in below; feet protest under the strain of increased weight and wrong use; fat pads appear in definite areas; a 'dowager's hump' or a 'spare tire' is registered.

"As a result of these changes, circulation, digestion and elimination tend to become troublesome, sluggish and precarious; muscles become flabby from lack of use and refuse to do their work of holding the structure together properly."

Such disorders can usually be corrected in their beginnings if one makes a constructive attempt to overcome them.

"Important as activity is to the preservation of bodily fitness," says the author, "there are times and conditions when relaxation should be substituted for activity until tenseness is gone and fatigue eliminated." She recommends lying flat on a bed, couch or floor for a moment in the middle of the day, or before the evening meal.

## THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. FREDERICK N. SCATENA.....President  
MRS. WILLIAM C. BOECK.....Chairman on Publicity

### Report of the President: For the Year 1938-1939

#### *To the Members of the Auxiliary:*

The California State Convention in Pasadena last May took place just previous to the annual convention of the Woman's Auxiliary to the American Medical Association in San Francisco, and was indeed an opportune time for me to assume the office of state president. It gave me the privilege of attending the National Board meeting and of becoming acquainted with many of the women with whom I was to have correspondence and official contacts during the year.

The California State Board meeting was held early in September in Santa Monica. We were fortunate to have most of the Board members and some of the county presidents with us. Plans for the year's Auxiliary activities were discussed.

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Following the suggestion of last year's attractive and capable president, Mrs. Hobart Rogers, we planned the official visits to the northern and central counties of the state early in the year, and on September 14 my corresponding secretary, Mrs. Eric Larson, and I set out on our good-will tour.

Tulare County was the first auxiliary visited. This was a luncheon meeting at the hospitable home of Mrs. J. C. McClure, and presided over by her. This was an excellent beginning to our year's activities.

Kern was our next destination. This was a dinner meeting held at the El Tejon Hotel in Bakersfield. Mrs. P. N. Root, the delightful president, is fortunate in having an excellent membership in her county.

Dinner in Bakersfield and luncheon the next day in Oakland, is covering considerable territory. A visit to Alameda County Auxiliary gives one an insight into the reasons why this county is always to the front. Mrs. Frank Baxter, gracious and efficient, is fortunate in having a very fine board associated with her.

We were unable to get answers to our letters from Butte County, and decided while in that district to use Sunday afternoon to contact some of the women who were officers last year. This we did, and had a most pleasant and profitable interview with Mrs. W. H. Barnes, and through her got in touch with Mrs. N. T. Enloe, who is the county president. She came to the state mid-winter board meeting and gave a splendid report.

Santa Clara County, ably presided over by Mrs. M. D. Baker, had a most delightful meeting, followed by tea. The place of meeting was at the home of Mrs. Russell Lee in Palo Alto; a perfect setting for a social and inspirational meeting. We truly had a traditional Stanford background.

We put the car on a river-boat at San Francisco and made a leisurely trip to Sacramento. As we pulled away from the dock, leaving San Francisco in the background, we seemed to be just drifting through fairyland. To add to the beauty of the occasion, a full moon was shining.

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. William C. Boeck, State Chairman on Publicity, 712 North Maple Drive, Beverly Hills. Brief reports of county auxiliary meetings will be welcomed by Mrs. Boeck and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

This was an official business trip, but my secretary and I did get joy and pleasure out of it. To be really truthful, that is just what the year has brought to me. Sacramento, the capital of this great state, is filled with history. We arrived early, so took advantage of the time to visit the Crocker Art Gallery. A luncheon meeting, presided over by Mrs. A. G. Spencer, followed. Sacramento is the home of our 1939-1940 Auxiliary president, Mrs. Frederick Scatena.

The women of Monterey County held their meeting at the Del Monte Lodge, Mrs. Garth Parker, the acting president, driving over from Salinas for the occasion. These are the women who have done so much to make this convention a success. Surely, in all the world there could be no lovelier place for such a gathering.

Marin County held its meeting in San Rafael. This was a dinner meeting, held at the Marin County Country Club; another beautiful place. The men and women meet at the same place for dinner. However, the meetings are separate. The president, Mrs. Bernard J. Conroy, was unable to be present because of a new arrival in the family. A delightful round-table was the order of the evening, presided over by Mrs. Harry Hensler.

At all the meetings reported above, speeches urging the women to help defeat the Humane Pound Act were made.

Mrs. H. E. Henderson, President of Santa Barbara County Auxiliary, invited us for dinner, which was followed by the regular meeting. I also made a few remarks before the men's meeting. Mrs. Henry Ullmann entertained the Auxiliary with a tea in her lovely home, especially honoring your president and corresponding secretary. Her home has a most unusual setting; it has beauty and charm, and Mrs. Ullmann is one of the most dynamic and gracious women I have ever had the pleasure of meeting. She is doing much for the cancer educational campaign being put on by the National Cancer Control Committee.

San Diego has been most active this year, as shown by the report of the January meeting. Mrs. Chester O. Tanner, the president, was in Vienna at the time, and Mrs. R. Emerson Bond was acting president.

In Riverside County a joint meeting with the men was held. Mrs. W. W. Roblee, the president, asked Mrs. Larson and me to come and bring our husbands. This was a very fine meeting. Doctors Kress and Dukes were the speakers of the evening. *The Public Medical Service Plan* was the subject of the evening talks. The women met for a brief session after the men adjourned.

En route to the State Board meeting we visited San Joaquin County. The meeting was held in Stockton. Members of the Board had luncheon at the home of Mrs. Percy Gallegos. We arrived a little early and had a nice opportunity to visit with the hostess and county president, Mrs. G. K. Wever. The regular meeting was held later at the home of Mrs. Verne Ross, and was followed by tea.

The mid-winter Board meeting was held in San Francisco on February 17. We had a good attendance of the Board and were pleased to have a good number of county presidents as well. The visit of the National President, Mrs. Charles C. Tomlinson, was a real pleasure to us all. She made a brief visit to Los Angeles after leaving San Francisco.

After the Board meeting, we were guests of the San Francisco Woman's Auxiliary at a delightful tea at the San Francisco County Medical Association Building. The San Francisco Physicians' Art Society was holding its first annual exhibit there at that time, and this was an added pleasure. The talented president, Mrs. Thomas Gibson, made a charming hostess. This social function was a pleasant ending to a strenuous day.

Returning from San Francisco, we met with the women of San Luis Obispo. Mrs. C. R. Kennedy is their president. They have an enthusiastic membership.

The official meeting of the Los Angeles County Auxiliary was held in Long Beach. The president, Mrs. William H.

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Leake, was in Mexico at the time, and Mrs. William C. Boeck, first vice-president, presided. Dr. Lowell S. Goin spoke on the *Public Medical Service Plan* of the California Medical Association.

Orange County Auxiliary asked us to a meeting held in the home of Mrs. G. Wendell Olson in Fullerton. Mrs. Hiram Currey, the president, presented a most interesting program. Tea followed.

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We have on our Board this year very fine women who have taken their positions seriously and have done their part to carry on the work of the Auxiliary.

The National Program Chairman sends suggestions to our State Program Chairman, who suits them to our needs and sends them on to the county chairmen. At all meetings which we attended, constructive programs were presented. Speakers on scientific subjects and health measures; reviews of medical fiction books; plays written and given by the members of the Auxiliary, all have gone to make up the year's programs.

We have stressed *Hygeia*, the official publication sponsored by the American Medical Association. The counties have coöperated by placing it in schools, public waiting rooms, beauty parlors, and doctors' offices.

The Membership Chairman has been successful in bringing in two counties—Ventura and Stanislaus.

The Editor and Publicity Chairman and her committee have gotten out two editions of *Courier* this year. This, I am told, is the only magazine in the country published by a State Woman's Auxiliary. I have had several letters from out of the State, complimenting us on this publication.

The Public Health Activities Chairman has made an effort to keep her department active. Six of the counties have coöperated and have done splendid work.

A great effort has been made by the Library Chairman to have the books in the State Library used, but she has met with very little response.

At all times the women of the Auxiliary have been ready and willing to give all possible aid to the doctors in any health program or legislative issue, and to assist in any way they would like to have them.

Mrs. Larson and I have driven about 4,200 miles, visiting seventeen county auxiliaries. From my record I find I have sent out approximately 500 letters; 125 of these were the membership and book lists.

Encouraging friendships among the profession and their families is an important part of our work, I believe. We are, or should be, ambassadors of good will as we go about in our daily activities. We have in our hands an opportunity to further a kindly feeling among the laity and the medical men.

MRS. CLIFFORD A. WRIGHT, *President*.

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### In Memoriam\*

Another year has passed and as we pause to look about us we find vacancies in the ranks of our membership. Our annual convention gives us an opportunity to greet old friends, to make new friends, and to remember lovingly the friends we have lost. To have known and worked with them was a privilege and an inspiration. Just as each one has contributed an individual part toward the success of our Auxiliary we, in turn, must do our work with the same spirit of loving service and devotion, because the ultimate success of an organization means the continued effort of each and every member within it.

As we rise, may I read the names of our departed friends, lighting a candle in memory of each of them:

Alameda County—Mrs. R. B. Penzotti, Mrs. Robert Glenn, and Mrs. John Stark.

Los Angeles County—Mrs. Henry B. Stehman of Pasadena.

San Francisco County—Mrs. Otto Pflueger and Mrs. Robert Martin.

This prayer which I shall read has always seemed to me to express a sentiment we all feel at this time:

"All you who mourn the loss of loved ones and at this hour remember the goodness, the hope, and the sweet companionship that have passed away with them, give ear to the word of comfort spoken in the name of our God. Only the body has died and has been laid in the dust. The spirit lives and will live forever in the shelter of God's love and mercy. But in this life the loved ones continue in the remembrance of those to whom they were precious. Every act of goodness they performed, every true and beautiful word they spoke, is treasured up and becomes an incentive to conduct by which the living honor the dead.

"To the dear departed whom we now remember, may peace and blessings be granted in life eternal; may they find grace and mercy before the Lord of heaven and earth; may their souls rejoice in that ineffable good which God has laid up for those who fear him, and may their memory be a blessing unto those who treasure it."

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### News Letter

Dear Auxiliary Members:

Greetings from your new chairman of publicity, who wishes at this time to thank your efficient Mrs. Fred H. Zumwalt for all her good suggestions for the carrying out of the many seemingly arduous duties of this office. But for her I should not have known where or how to start, and I am deeply grateful. May I prove as worthy of the trust placed in me, and I promise that I shall try to serve you well.

As they come in to us, we are placing the names and addresses of the new county presidents on page 6 of this publication, where you will always find the roster of Auxiliary officers. Use this page. It is your directory, and through these names you should always be able to contact any state or county officer.

This month we print the splendid report of her year's work given at the Del Monte convention by our outgoing president, Mrs. Clifford A. Wright. Also Mrs. Thomas E. Gibson's beautiful tribute, "In Memoriam." Next month we hope to have the report of the convention itself.

May I express for all of us our appreciation of the beauty of the spot and of the warm hospitality which makes it such fun to go to a convention at Del Monte.

Most sincerely yours,

MRS. WILLIAM C. BOECK,  
*State Chairman on Publicity.*

### Component County Auxiliaries

#### *Fresno County*

The final meeting of the Auxiliary to the Fresno County Medical Society was held on May 9 at the California Hotel. Thirty-two members attended the spring luncheon.

Dr. Neil Dau was the speaker, telling about the *Fresno Children's Summer Health Camp* that is held each year at Dinkey Creek.

Mrs. Chester M. Vanderburgh, outgoing president, reported on the *State Convention Held at Del Monte*.

The Fresno Auxiliary was pleased and happy to learn that Mrs. A. E. Anderson, one of our own members, was made president-elect of the State Auxiliary.

New officers were elected: Mrs. Kenneth Staniford, president; Mrs. Neil Dau, vice-president; Mrs. Edwin Scarboro, secretary; Mrs. Frank Ruff, treasurer; and Mrs. L. Glynn Price, historian.

MRS. CHARLES H. INGRAM, *Publicity Chairman*.

\* By Mrs. Thomas E. Gibson, San Francisco.

### Los Angeles County

The Los Angeles Auxiliary held its final meeting of 1938-1939 season at the Woman's Athletic Club on Tuesday, May 23.

Mr. S. K. Cochems, Executive Secretary of the Los Angeles County Medical Association, addressed the eighty-five members and guests present. Mr. Cochems' topic was *The Larger Responsibilities*, the responsibilities of doctors' wives.

Mrs. Charles Castlen read her own delightful composition, entitled *Could You Marry a Doctor?*

The State president, Mrs. Clifford Wright, made a short address, touching on the *Highlights of the Del Monte Convention*.

The following officers for the coming year were installed: President, Mrs. E. Eric Larson of Los Angeles; first vice-president, Mrs. Ralph B. Eusden of Long Beach; second vice-president, Mrs. John Martin Askey of Los Angeles; recording secretary, Mrs. Jay B. Cosgrove of Los Angeles; treasurer, Mrs. Paul D. Foster of Los Angeles; and directors, Mesdames William Daniel of La Cañada, Clyde E. Harner of Long Beach, Hyman Miller of Los Angeles, Fred Speik of Pasadena, K. P. Stadlinger of Burbank, and W. Benbow Thompson of West Los Angeles.

Mrs. William Boeck, Vice-President, made a motion that \$50 from the treasury be donated to the Cancer Fund. The motion carried, and Mrs. C. G. Stadfield, Treasurer, was instructed to forward the money. Mrs. Boeck reported a membership of 611, seventy-four of which are new.

Annual reports were read by the chairmen of the following committees: Legislative, Philanthropy, Program, Publicity, Hygeia, Reservations, and Membership.

MRS. KARL VON HAGEN, *Publicity Chairman*.



### Marin County

The last meeting for the year of the Woman's Auxiliary to the Marin County Medical Society was held at the Sleepy Hollow Country Club on Thursday evening, May 25. Officers unanimously elected for the coming year were: Mrs. C. A. DeLancey, president; Mrs. George A. Landrock, first vice-president; Mrs. M. E. Hazeltine, second vice-president; Mrs. Lloyd G. Tyler, secretary; and Mrs. Elmer W. Smith, treasurer.

The members of the medical society then joined the women for a "bring-your-husband dinner" and entertainment which the Auxiliary members had prepared. Mrs. C. A. DeLancey had written and directed a very clever and amusing play, *Charity Begins at Home*, which was the feature of the evening. Members of the Auxiliary were the cast. Dr. Lawrence Knox of Berkeley sang several songs beautifully, and Dr. Alex Miller of San Rafael played a number of delightful piano compositions. Mrs. Bernard J. Conroy, the retiring president, was presented with a lovely gift from the Auxiliary by Mrs. C. C. Everman. Dancing concluded this most successful evening.

MRS. BERNARD J. CONROY.



### Santa Cruz County

The Woman's Auxiliary to the Santa Cruz County Medical Society met at the Hotel Appleton in Watsonville on Monday, May 22. Luncheon preceded the meeting. Fourteen members were present.

It was voted to take a membership in the Public Health League.

Mrs. O. C. Marshall and Mrs. F. P. Shenk gave reports on the recent convention held at Del Monte.

Mrs. Phillips was presented with a gift, in appreciation of her having been our efficient president for two years.

The next meeting will be held on the fourth Monday in September at Rio Del Mar, with the new officers taking charge.

MRS. R. C. ALSBERGE, *Publicity Chairman*.

*Imminent Spontaneous Fall in Syphilis Rate Predicted.*—That the groundwork has been laid for an imminent spontaneous fall in the incidence of syphilis is indicated by the high incidence of the disease which prevails in the age group who acquired their syphilis before the advent of the discovery of the spirochete (1905), the development of important arsenic and bismuth preparations and the knowledge of the serologic tests, G. H. Hansmann, M. D., Milwaukee, declares in *The Journal of the American Medical Association* for May 6.

He points out that elderly persons who contracted their syphilis thirty or forty years ago and who received no or very inadequate treatment will presently drop out of the picture and consequently there will be an appreciable spontaneous drop in the incidence of syphilis.

Evaluations of the prevalence of syphilis are often misleading, Doctor Hansmann believes. "There can be no intelligent discussion of syphilis on the basis of the number of serologic tests per thousand of population," he contends. "The least information for an intelligent discussion would appear to be the number of individuals represented by the tests per given area, the personal and the economic consequences of the disease, what the treatment has to offer the individual, and the functional and anatomic integrity of the body resulting from causes other than syphilis and the inadvertent serious consequences of the treatment.

"A positive serologic test for syphilis is usually taken as a signal to turn on the spigots of antisyphilitic treatment. When the marked divergence between positive tests and structural evidences of syphilis as studied clinically, by x-ray and at death is viewed, thorough medical men must often wonder whether we do not have too implicit faith in a positive serologic test for syphilis.

"We must bear in mind that a person who has a positive serologic test may be actually or concurrently suffering from any of the other diseases which may be interpreted as syphilis because of a positive serologic test. Experience at postmortem examination has taught me that if the brain, cardiovascular system, liver, hematopoietic organs (those concerned with formation of the blood) or kidney is vulnerable or actually diseased, the consequences of antisyphilitic treatment are too often grave. Antisyphilitic treatment is therefore not to be undertaken lightly."

*Joint Health Committee Reorganized.*—A reorganization of the Joint Committee on Health Problems in Education of the American Medical Association and the National Education Association is announced in *The Journal of the American Medical Association* for March 25.

The general principles of the reorganized committee include that it shall be constituted of the two associations as a whole and not of any department or section of either one; that it shall include no representatives of other health agencies and shall be strictly a joint committee of the participating organizations; that it shall consist of five representatives of each organization who shall be appointed to serve one, two, three, four, and five years, respectively, for their first terms and five-year terms thereafter and shall not be eligible for more than two successive terms.

The principal objectives of the committee are defined as: (a) to promote a joint understanding between physicians and teachers; (b) to bring to bear on health problems in education the best thoughts in medicine and pedagogy; (c) to identify health problems in education and endeavor to promote constructive solutions for them; (d) to seek publication of the conclusions of the committee through the columns of the periodical publications of the participating organizations whenever possible and to publish pamphlets principally as reprints when special indications for such publication exist.



## MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

## NEWS

### Coming Meetings

*American Medical Association*, New York, June 10-14, 1940. Olin West, M. D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

*California Medical Association*, Hotel Del Coronado, Coronado, May 6-9, 1940. George H. Kress, M. D., Secretary, 450 Sutter Street, San Francisco.

*Nevada Medical Association*, Reno, September 22 and 23, 1939. Horace J. Brown, M. D., Secretary, P. O. Box 689, Reno, Nevada.

### Medical Broadcasts\*

#### *Los Angeles County Medical Association*

The radio broadcast program for the Los Angeles County Medical Association for the month of July is as follows:

Saturday, July 1—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, July 6—KECA, 9:45 a. m., The Road of Health. Saturday, July 8—KFI, 10:30 a. m., The Road of Health;

KFAC, 11:30 a. m., Your Doctor and You.

Thursday, July 13—KECA, 9:45 a. m., The Road of Health. Saturday, July 15—KFI, 10:30 a. m., The Road of Health.

KFAC, 11:30 a. m., Your Doctor and You.

Thursday, July 20—KECA, 9:45 a. m., The Road of Health. Saturday, July 22—KFI, 10:30 a. m., The Road of Health;

KFAC, 11:30 a. m., Your Doctor and You.

Thursday, July 27—KECA, 9:45 a. m., The Road of Health. Saturday, July 29—KFI, 10:30 a. m., The Road of Health;

KFAC, 11:30 a. m., Your Doctor and You.

### Study Institute on Blood and Blood-Forming Organs.

The University of Wisconsin Medical School is to conduct an Institute for the Consideration of the Blood and Blood-Forming Organs, September 4 to 6, 1939. The program is to include papers and round-table discussions by European and American workers in the field of hematology.

Physicians and others who are interested are cordially invited. A detailed program may be obtained by addressing Dr. Ovid O. Meyer, Chairman of Program Committee, University of Wisconsin Medical School, Madison, Wis.

**American Congress of Physical Therapy.**—The eighteenth annual scientific and clinical session of the American Congress of Physical Therapy will be held September 5-8, 1939, at the Hotel Pennsylvania, New York City. Preceding these sessions the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians—August 30, 31, September 1 and 2.

The instruction seminar should prove of unusual interest to physicians and technicians. The clinics which comprise half of the schedule make this course outstanding for its practical value. As in the past, outstanding clinicians and teachers will participate. Registration is limited to one hundred, and is by application only. For information concerning seminar and preliminary program of convention proper, address American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

\* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

**American Public Health Association.**—This year the Western Branch of the American Public Health Association, representative of the eleven western states, the three western provinces of Canada, and the territories of Alaska and Hawaii, will meet in Oakland, California, July 23 to 28 (at the Hotel Oakland).

A program of outstanding interest, not only to public health workers but to physicians, social workers, and educators as well, has been prepared. Important features will be a health education symposium and a panel discussion on government and medicine.

Both the advent of the Sixth Pacific Science Congress, with which group several joint sessions will be held, and the Golden Gate International Exposition on Treasure Island are expected to add greatly to the attendance at this meeting.

For information, write to W. P. Shepard, M. D., Secretary, Western Branch, American Public Health Association, 600 Stockton Street, San Francisco.

**Dread Heart Disease Halted by New Method.**—An important new development in the world-wide campaign to halt the inroads of angina pectoris, one of the most painful and dreaded of all human heart complaints, is announced by the University of California Medical School.

The treatment requires a specially designed abdominal belt, the use of which increases the return of venous blood to the heart by raising the intra-abdominal pressure. In cases of obesity, the belt relieves the diaphragm of the counterweight of the abdomen, allowing the diaphragm to function more normally. The consequent improvement in coronary circulation is roughly proportionate to the filling of the heart with blood. Abdominal support serves for the relief of pain during the time that the weight is being reduced by dietary measures. It has been found that, during treatment, the usual drugs may be dispensed with. Also, with certain modifications, the treatment may be used effectively on slender people.

**Knudsen Award in Industrial Medicine.**—At the recent convention of the twenty-fourth annual meeting of the American Association of Industrial Physicians and Surgeons in Hotel Statler, Cleveland, Dr. C. O. Sappington of Chicago was named winner of the W. S. Knudsen Award for the Most Outstanding Contribution to Industrial Medicine during 1938-1939. . . .

The award was made on the basis of Doctor Sappington's new book, "Medicolegal Phases of Occupational Diseases." It is an exposition in nontechnical language of the various aspects of the occupational disease problem as it affects employer, doctor, and lawyer.

As a critical analysis of the medicolegal problem it considers particularly the measurement and evaluation of industrial exposures; the interpretation and application of information relating to physical examinations, diagnosis, clinical laboratory work and x-ray findings; the correlation of industrial and medical information in terms of cause and effect relationships; occupational disease legislation; case decisions of damage suits; commission hearings and review cases; and insurance coverage. . . .

**University of California Medical Chairmen.**—The following chairmen of divisions of the Medical School for the next academic year were announced: Anatomy, J. B. deC. Saunders; bacteriology, K. F. Meyer; biochemistry, C. L. A. Schmidt; legal medicine, A. M. Kidd; medical history and bibliography, L. Porter; medicine, W. J. Kerr; dermatology, H. E. Miller; neurology, M. B. Lennon; psychiatry, E. W. Twitchell; preventive medicine, S. P. Lucia; medico-military science and tactics, A. J. Bayley; obstetrics and gynecology, F. W. Lynch; pathology, C. L. Connor; pediatrics, F. S. Smyth; pharmacology, C. D. Leake; physiology, J. M. D. Olmsted; surgery, H. C. Naffziger; anesthesia, Dorothy A. Wood; ophthalmology, F. C. Cordes; orthopedic surgery, L. C. Abbott; otorhinolaryngology, W. B. Smith; roentgenology, R. S. Stone; urology, F. Hinman.

**Postgraduate Medical Courses for Practicing Physicians.**—Stanford University School of Medicine, in cooperation with the San Francisco Department of Public Health and the San Francisco Hospital, has announced a series of postgraduate courses to be held August 28 to September 1, 1939, inclusive.

There will be a registration fee of \$25. An additional fee of \$10 will be made to cover the cost of materials used in Course 8, Surgical Anatomy and Operative Technique.

Each physician may take a morning and an afternoon course, and all physicians should attend the evening general meetings. Registration closes on August 22.

All fees are payable to Stanford University School of Medicine, and checks and applications for registration in these courses should be mailed to the Dean, Stanford University School of Medicine, 2398 Sacramento Street, San Francisco, not later than August 22.

#### MORNING COURSES

Monday, Tuesday, Wednesday, Thursday, and Friday  
8:30-12:00

**Course 1—Traumatic Injuries and Fractures.** (At San Francisco Hospital).

This course will deal with the diagnosis and treatment of fractures and other traumatic injuries.

Course by Drs. J. W. Cline, Roy Cohn, Leo Eloesser, F. A. Fender, Delbert Hand, Nelson Howard, Donald King, Carleton Mathewson, Jr., J. M. Meherin, and E. J. Morrissey.

**Course 2—Obstetrics.**

This course will be devoted exclusively to obstetrical problems. The following subjects will be discussed: The newer aspects of normal and abnormal pelvis in relation to labor; vitamins, endocrines, and metabolism in the prenatal period; toxemias and their treatment; surgical problems in obstetrics; obstetrical accidents; obstetrical analgesia and anesthesia; fetal and maternal mortality.

Course by Drs. D. A. Dallas, D. W. deCarle, L. A. Emge, C. F. Fluhmann, P. E. Hoffmann, T. H. Kelley, A. V. Pettit, K. L. Schaupp, H. A. Stephenson, and Hans Von Geldern.

**Course 3—Diseases of the Genito-Urinary Tract.**

This course will review the common disorders of the genito-urinary tract by lectures and discussions, and by demonstrations of diagnostic and treatment methods in the out-patient clinic, ward rounds, operative and cystoscopic clinics.

Course by Drs. J. R. Dillon, James Ownby, L. R. Reynolds, and William Sumner.

**Course 4—Cardiology.** (Two sections limited to fifteen physicians in each section.)

This course will consist of rounds in the medical wards, conferences, bedside demonstrations of patients and discussions of problems relating to diagnosis and treatment of heart disease. Diagnosis and treatment will be stressed and special topics, including coronary disease, heart disease in children, cardiovascular syphilis and electrocardiography, will be discussed.

Section at Lane Hospital by Drs. C. W. Barnett, A. L. Bloomfield, William Dock, J. K. Lewis, William Newman, Ann Purdy, and David Ryland.

Section at San Francisco Hospital by Drs. George Barnett, A. J. Cox, L. H. Garland, Lovell Langstroth, Carol McKenney, J. M. Read, C. F. Sweigert, and D. L. Wilbur.

#### AFTERNOON COURSES

Monday, Tuesday, Wednesday, Thursday, and Friday  
1:30-5:00

**Course 5—Diagnosis and Treatment of Malignant Tumors.**

This course will consider (1) present-day theories of the origin and nature of cancer; (2) methods for diagnosis, including the criteria of malignancy, indications and technique for biopsy; and (3) principles of surgical and radiologic treatment, with discussion of the specific indications offered by the various histologic and regional groups of tumors.

Course by Drs. J. R. Dillon, L. G. Dobson, L. A. Emge, L. H. Garland, E. F. Holman, Donald King, Eric Liljencrantz, R. R. Newell, F. L. Reichert, Robert Scarborough, and D. A. Wood.

**Course 6—Allergic Diseases.**

The more common allergic diseases seen by the general practitioner will be reviewed, stressing the diagnosis and treatment of hay fever, allergic asthma, urticaria and eczema, the allergic manifestations in childhood, and allergy in nose and accessory sinus disease. The technique of cutaneous and intradermal tests and patch tests will be demonstrated. The source, preparation and standardization of extracts used will be described and the methods of desensitization outlined. Patients will be presented.

Course by Drs. R. E. Ashley, Jack Cohn, J. L. Courtright, S. H. Hurwitz, M. T.-R. Maynard, August Reich, and Minnola Stallings.

**Course 7—Neurology and Psychiatry.**

This course will consider the diagnosis and treatment of the common disorders of the central nervous system, with special emphasis on the treatment of the psychoneuroses in general practice, a consideration of special problems in neurosurgery and neuropathology, and the indication for and use of shock treatment (insulin and metrazol) in the psychoses.

Course by Drs. Joseph Catton, F. A. Fender, G. S. Johnson, E. G. Lion, H. W. Newman, F. L. Reichert, W. F. Schaller, and J. M. Wolfsohn.

**Course 8—Surgical Anatomy and Operative Technique.** (Limited to twenty-four physicians.)

This course will be conducted in the dissecting room and the experimental laboratories; will include dissection of special regions and instruction and practice in the technique of various operations.

An additional fee of ten dollars will be made to cover the cost of material used in this course.

Course by Drs. Burt L. Davis, Donald King, and G. W. Nagel.

#### COURSES FOR SPECIALISTS

Monday, Tuesday, Wednesday, Thursday, and Friday  
Mornings. 9:00-12:00; Afternoons, 2-5:00

**Course 9—Ophthalmology.** (For specialists only; general practitioners are not eligible for this course.)

This course will cover such problems as cataract, glaucoma, ocular tumors, slit-lamp technique by discussions, demonstrations and conferences, in the out-patient department, laboratories, and operating room.

Course by Drs. Hans Barkan, Jerome Bettman, William E. Borley, Charles DeVaul, Max Fine, Avery Hicks, Robert Irvine, George Lachman, Dohrmann Pischel, Gaynelle Robertson, Frank Rodin, H. Gordon Smith, and Wilber Swett.

**Course 10—Anesthesiology.** (Limited to six physicians. Only those whose practice already includes anesthesiology will be eligible to this course.)

This course will review physiology, preliminary medication, anesthesia in infants; obstetric analgesia and anesthesia; the rectal, intravenous, spinal, and inhalation methods of administration, using the newer anesthetic agents.

Course by Drs. Emelie Andersen, E. H. Case, Adena Dutton, Winifred Golenternek, W. B. Neff, L. A. Rethwilm, J. A. Stiles, and Laverne Wright.

#### GENERAL MEETINGS

Tuesday, Wednesday, and Thursday Evenings  
Lane Hall—8:00-10:00 o'clock

**Meeting 1—Tuesday evening, August 29: Peripheral-Vascular Diseases,** by Dr. Frederick L. Reichert.

**Meeting 2—Wednesday evening, August 30: Vitamin Therapy,** by Dr. Garnett Cheney.

**Meeting 3—Thursday evening, August 31: Problems in Dermatology,** by Dr. Harry E. Alderson and Dr. Merlin T.-R. Maynard.



**Chinese Do Not Pay Doctors to Keep Them in Good Health.**—The widely quoted statement that the Chinese pay their doctors to keep them well instead of to cure their illnesses has no basis in fact, J. D. Laux, Chicago, declares in the June issue of *Hygeia*, the health magazine.

While the origin of the myth cannot be traced, Mr. Laux says, "like so many other quoted and requoted statements that gain credence by repetition, the original is apparently the mere idea of some individual." One avowed basis is a reported interview with a Chinese, dignified by impressive footnotes which cannot be traced to any authentic source.

The foolishness of the idea is apparent when one considers that the average Chinese family is able to spend only 30 cents annually for medical care. "If \$600 per year is taken as the minimum income for a qualified physician," the author observes, "5,000 persons would have to contribute 12 cents per capita to keep the physician alive and an additional \$400 to \$500 a year would be necessary to keep him equipped for active work. This would mean that about 10,000 Chinese would be necessary to support a physician—a number for which no practitioner could properly care.

"In China there is only one modern trained physician for every 30,000 inhabitants, as compared with one for 768 in the United States. The dearth of qualified physicians in China and the well-known impoverished status of its people also would seem to question the validity of a Chinese system of payment for preventive medical services.

"In China, as in every other country, rich persons often request physicians to devote their entire practice to keeping them well. Nevertheless, even under such an arrangement the physician receives an income that remunerates him for his services both in attempting to keep his patient well and in treating the patient when sick."

**Biological Photographic Association.**—The ninth annual convention of the Biological Photographic Association will be held September 14 to 16, at the Mellon Institute for Industrial Research, Pittsburgh, Pennsylvania. The program will be of interest to scientific photographers, scientists who use photography as an aid in their work, teachers in the biological fields, technical experts and serious amateurs. It will include discussions of motion picture and still photography, photomicrography, color and monochrome films, processing, etc., all in the field of scientific illustrating. Up-to-date equipment will be shown in the technical exhibit; and the Print Salon will display the work of many of the leading biological photographers here and abroad.

The Biological Photographic Association was founded nine years ago because of the growing need for expert illustrative material for scientific research and teaching. Many workers were solving their problems in their own way. But, obviously, they were wasting time and effort in individually repeating experiments that had been worked out elsewhere. The Biological Photographic Association was formed to act as a clearing house for new ideas, to pool experiences, record standard procedures and disseminate information. Its aims were scientific and all services have been volunteered by officers and members on a nonprofit basis.

The *Biological Photographic Association Journal* is published quarterly, constituting a volume of about 250 pages, which is furnished free to members. Membership privileges include an authoritative question and answer service; also the right to borrow loan albums and exhibits of scientific prints for study and display.

Further information about the Association and the convention may be obtained by writing the Secretary of the Biological Photographic Association, University Office, Magee Hospital, Pittsburgh, Pennsylvania.

**State Play Camp for Diabetic Children Planned.**—A graphic demonstration of the fact that the diabetic child can play just as long and as hard as his normal companions, is to be offered by the University of California Medical School with the establishment of a recreation camp for the diabetic children of the state July 31 to August 27. The camp will be in the University's own Whitaker Forest in Tulare County, and will be divided into two periods of two weeks each. It is hoped to be able to provide full recreation facilities for about the same price that would be charged at an ordinary recreation camp, and to give treatments to the children without cost in the event that enough funds can be raised for this service.

While any child, boy or girl between the ages of seven and sixteen, living in any part of the state, may apply for admission, it will be necessary to restrict the attendance to 30 for each two weeks' period, to fit the camp accommodations. It is hoped that in future years, when the University is able to obtain sufficient funds, the camp will be enlarged to accommodate many more.

**Pacific Coast Oto-Ophthalmological Society.**—The twenty-seventh annual meeting of the Pacific Coast Oto-Ophthalmological Society was held in the Fairmont Hotel, San Francisco, California, on Monday, Tuesday, Wednesday, Thursday, June 19, 20, 21, and 22, 1939, under the auspices of the following officers: President, Frederick C. Cordes, M. D., San Francisco; first vice-president, E. S. Murphy, M. D., Missoula, Montana; second vice-president, W. G. Cameron, M. D., Tacoma, Washington; and secretary-treasurer, C. Allen Dickey, M. D., San Francisco. The attendance was excellent, the registration of members being the largest in the history of the organization.

Much credit is due the committees, whose good work made possible an annual session of special interest, value, and pleasure.

An outline of the program of events follows:

Sunday, June 18

President's cocktail party, Bohemian Club, 5:30 to 7.

Monday, June 19

Morning—9:00-12:30:

First Scientific Session, Red Room, Fairmont Hotel.

Afternoon:

1:30—The annual golf tournament at Claremont Golf Club.

Sightseeing at the Exposition for the nongolfers.

Evening:

6:30—Cocktails, Administration Building, Treasure Island.

7:00—Dinner, Administration Building.

8:00—Illumination Tour of Exposition.

Tuesday, June 20

Morning—9:00-12:30:

Instruction Courses.

First Group—9:00-10:30.

Second Group—11:00-12:30.

Afternoon—2:00-5:00:

Second Scientific Session, Fairmont Hotel.

Wednesday, June 21

Morning—9:00-12:30:

Third Scientific Session, Fairmont Hotel.

Afternoon—1:30:

Sightseeing at the Exposition.

Afternoon—3:00:

Cavalcade of the Golden West, Treasure Island.

Evening—7:30:

Men's banquet, Bohemian Club, San Francisco.

Women's banquet.

Thursday, June 22

Morning—9:00-12:30:

Instruction Courses.

First Group—9:00-10:30.

Second Group—11:00-12:30.

**The American Congress on Obstetrics and Gynecology.**—At Cleveland, Ohio, September 11 to 15, 1939, under the sponsorship of the American Committee on Maternal Welfare, Inc., will be held a series of meetings, open to the entire medical profession. For information, write to the Association at the Annex, 650 Rush Street, Chicago.

**Certification of Coal-Tar Colors Begun by Food and Drug Administration.**—The first certificates of purity of coal-tar colors under the new Federal Food, Drug, and Cosmetic Act were issued on May 11, 1939, by the Food and Drug Administration. The new law prohibits the use of any coal-tar color in foods, drugs, or cosmetics unless it has been found to be harmless and suitable and has been certified by the Department as to purity. Color certification regulations were signed by the Secretary on May 4 and became effective on May 9 upon publication in the Federal Register.

#### Vital Statistics Information:\*

##### *Do You Know?—*

1. That few persons of "pension" age in the United States can secure birth certificates transcribed from records made at the time of birth because births were not all recorded sixty-odd years ago.
2. That there is no Federal Vital Statistics Law compelling the registration of births and deaths. Each state has its own registration law and its own methods of collection and enforcement.
3. That the only Federal control of birth and death registration is achieved through the requirements of the Bureau of the Census, Department of Commerce, for admission of a state to the National Birth and Death Registration Areas.
4. That a state need show evidence that certificates are on file for only 90 per cent of births or deaths for a given year to remain in the National Birth or Death Registration Areas. If a state is lax in vital statistics law enforcement, a possible 10 per cent of its people may be unable to secure copies of their birth certificates at a future date.
5. That no state was eligible for admission to the National Birth Registration Area until 1915. No state had the necessary 90 per cent minimum registration until that time.
6. That California did not have the required 90 per cent minimum registration until 1919, although the California Vital Statistics Law was passed in 1905.
7. That the National Birth and Death Registration Areas were not complete until 1933, when Texas was admitted. Vital statistics for the United States as a whole were, therefore, not properly comparable with European countries until 1933.

The vital statistician has long felt the need for more complete and accurate registration of births and deaths in order to compile statistics which reflect a true picture of the biological happenings in the population. The Social Security Act has brought about an understanding of the practical value of birth registration.

Complete and accurate registration cannot be achieved by legislation or compulsion. It cannot be accomplished by the threat of heavy penalties laid upon those required by law to file birth or death certificates in the event of their failure to do so.

It will come only when every individual realizes his personal responsibility in connection with these vital public records. Everyone should have a basic knowledge of the principles of registration. Everyone should have a thorough understanding of the importance of accuracy in the information he may be called upon to give.

Briefly stated, 100 per cent complete and accurate registration can best be accomplished by education, not legislation; by coöperation, not compulsion.

\* Monthly Bulletin, Department of Public Health, San Diego. By Mae Goshert, Vital Statistics Clerk.

**Governmental Nursing Survey.**—Almost half the personnel employed by governmental and other health agencies are field nurses, according to a twelve-month survey of activities in ninety-four selected counties made by the National Health Inventory conducted by the United States Public Health Service.

"On a basis of full-time employees serving in all counties studied," says Dr. Joseph W. Mountin, Senior Surgeon of the Service, and others ("Organized Public Nursing and Variation of Field Programs," *Public Health Reports*, May 19, 1939), "nurses outnumber physicians seven to one; inspectors, five to one; and dentists, forty-three to one. Actually, nearly six thousand public health or field nurses are attached to those organizations reporting nursing activities in the counties studied. They constitute nearly 50 per cent of all employees attached to health agency staffs, and their salaries account for about one-third of total budgets." . . .

Whereas nurses of official agencies emphasize instructive home service, those of nonofficial health groups feature bedside care as the outstanding objective of their visiting. Control of transmissible diseases and child hygiene activities represent the most frequent purposes for which instructive service was provided, while general illnesses of adults constitute the most common reason for bedside care. Maternal and infant services occupy a more prominent position in the programs of nonofficial agencies than in those of governmentally controlled organizations. Presumably because return visits are a more necessary factor of bedside care than of instructive service, says the study, nurses of nonofficial agencies reported greater intensity of service than did their officially employed coworkers.

"The facts cited here," Doctor Mountin concludes, "supply additional evidence in support of what is well known to health administrators, namely, that official organizations in most instances seek to accomplish their objectives by disseminating information and by instituting regulatory measures, while nonofficial agencies operate very largely in the field of care for a restricted number of persons already ill."

**American Board of Obstetrics and Gynecology.**—The American Board of Obstetrics and Gynecology announces that at the recent examinations held by the Board at St. Louis, Missouri, on May 13, 14, 15, and 16, two hundred and fifty-nine candidates were examined. Two hundred and twenty-eight candidates were successful in the examinations and were certified by the Board, twenty-nine candidates failed, and two examinations were not completed by the candidates.

At the annual meeting of the Board, held in St. Louis on May 12, 1939, it was found necessary, on account of increased administration expenses, to increase the application and examination fees. Effective immediately, these are to be as follows: Application fee \$15, payable upon submission of application for review by Board. Examination fee \$75, payable upon notification to candidate of acceptance of the application and assignment for examination. Neither fee is returnable. This increase does not apply to candidates whose applications were filed prior to May 12, 1939.

The next written examination and review of case histories (Part I) for Group B candidates will be held in various cities of the United States and Canada on Saturday, December 2, 1939, at 2 p. m. The Board wishes to announce that it will hold only one Group B, Part I, examination in this and subsequent years. Candidates who successfully complete the Part I examinations proceed automatically to the Part II examinations held later in the year.

Applications for admission to Group B, Part I, examinations must be on file in the secretary's office not later than October 4.

The general oral and pathologic examinations (Part II) for all candidates (Groups A and B) will be conducted by



the entire Board, meeting in Atlantic City, New Jersey, on June 7, 8, and 9, 1940, immediately prior to the annual meeting of the American Medical Association to be held in New York City from June 10 to 14, inclusive.

Applications for admission to Group A, Part II, examinations must be on file in the secretary's office not later than March 15, 1940.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

**Public Health Service at the University of California.** More than 44,000 men, women, and children from fifty-six counties of California received treatment in the medical clinics of the University of California, and 8,300 of them were hospitalized at the University Hospital during the past two years.

This fact is pointed out by President Robert Gordon Sproul in his current biennial report to Governor Culbert L. Olson, which outlines the great number of public services which the University performs in addition to its instruction of more than 25,000 resident students.

These figures, President Sproul points out, do not include 5,449 other citizens of California who were sent directly to the University Hospital without passing through the clinics for diagnosis. In addition, the dental clinics of the University provided treatment for 12,446 people of limited means during the same period. These treatments were given for the cost of materials and labor to individuals who otherwise would probably have been forced to neglect their dental needs.

"This service," President Sproul adds, "was not confined to patients within commuting distance of the Medical Center in San Francisco, but covered the entire state. Under the Medical Clinic program any general practitioner in the state who is confronted by an obscure ailment, the nature or treatment of which is in doubt, may send his patient to the Medical Center for a complete examination, after which recommendations for treatment are made. Up to the present time one out of every three physicians in the state has availed himself of this service. The result has been more efficient care for the sick.

"Correlated with this activity has been that of the State Medical Library Package Service. Under this plan central repositories for medical works have been established at the Medical Center and at the Postgraduate School on the Los Angeles campus. Its purpose is to make available to physicians of the state journals and books which they cannot afford to purchase but which will aid them in improving their service to the public. During the past biennium an average of 1,200 physicians have borrowed from the libraries each year.

"Notable advances have also been made in medical research. Among these may be mentioned a new method for rapid detection of psittacosis, or 'parrot fever'; determination of the cause of poisoning brought on by consumption of Pacific Coast shellfish; evidence to show that infantile paralysis is not a single disease but a series of closely related ailments; and progress made in determining the cause of progressive, incurable deafness."

**Press Clippings.**—Some news items from the daily press on matters related to medical practice, follow:

#### "Health" Bill Is Defeated

Sacramento, June 14 (UP).—A state system of compulsory health insurance, pledged by Governor Culbert L. Olson and opposed as "government interference" by the State Medical Association, was overwhelmingly defeated by the California Assembly last night, 20 to 48.

The bill called for a program estimated to cost \$60,000,000 a year for medical benefits and hospitalization for employees earning less than \$3,000 annually. Employee tax

and employer contribution, similar in character to the State Unemployment Compensation Act, was to have financed the measures.

Roundly assailed by the Medical Association, although highly praised by individual physicians, the defeated measure at least prompted a voluntary insurance scheme from the Medical Association itself.

The California Physicians' Service, under the leadership of Dr. Ray Lyman Wilbur of Stanford University, already is in operation. Insurance is limited to employed groups of five or more persons earning less than \$3,000 a year. For \$2.50 a month per person, subscribers receive complete medical and surgical care.

Under the profession's plan, patients may choose their own doctors, who are paid standard sums by the California Physicians' Service.—Los Angeles Herald, June 14.

\* \* \*

#### State Health Insurance Bill Loses

Sacramento, June 13 (AP).—The State Assembly tonight overwhelmingly rejected an Administration bill calling for the establishment of a compulsory state health insurance program.

The House voted, 48 no to 20 aye, against the Rosenthal bill on the subject. Tonight's vote formally settled the matter. Earlier in the session an amendment was defeated which would have required a ratifying vote of the people at a general election before the bill became effective.—Los Angeles Times, June 14.

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#### Death Stroke Dealt Olson Health Plan

Sacramento, June 14.—Compulsory state health insurance was in the Legislature's graveyard today.

By a vote of 48 to 20 the lower House overwhelmingly defeated virtually this last of the Administration's measures.

Introduced by Assemblyman Ben Rosenthal, the measure carried the backing of Governor Culbert L. Olson, who sponsored it as a part of the platform on which he was elected.

The vote, however, was mainly a formality.

Earlier in the session an amendment was defeated which would have required a ratifying vote of the people at a general election before the bill became effective. Vote on the amendment was considered a test.

Most legislators had felt the bill would be allowed to die without forcing another roll call.

In presenting the measure, Rosenthal advanced it as "the most progressive piece of legislation this session."

It provided for employer-employee contributions to finance the plan.—San Francisco Call-Bulletin, June 14.

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#### What Goes On?\*

##### A Morning Thought—

*When one's all right, he's prone to spite  
The doctor's peaceful mission;  
But when he's sick, it's loud and quick  
He bawls for a physician.* —Eugene Field.

The Olson compulsory insurance plan would impose a clerical detail on busy physicians that they should not be compelled to bear. Besides which, if anyone thinks such a service would be an improvement on the present free clinic plan, he is entitled to at least one more think.

Naturally, a full-paying patient is going to get first call on the services of his physician and on his time and research necessary to a proper diagnosis and treatment of individual requirements.

With mechanized state medical care, doctors would be deluged with hypochondriacs determined to get their "money's worth." Each of these "cases" would require a record kept and voluminous reports made to a state authority set up for the purpose. Gradually and inevitably this medical oversight would be shunted over to less experienced assistants.

#### Doctors Give Freely of Time and Talent

There is hardly a physician, including those at the head of their profession or leaders in specialized fields, who does not now give an appreciable percentage of his time and freely devote his talent to work either in clinic, hospital, or the privacy of his own consulting room (usually all three) for which he gets no pay at all or remuneration entirely out of proportion to the services rendered.

It is no secret that physicians and surgeons have a sliding scale of charges, and what's wrong with that? We know two men who recently underwent complicated, almost identical, major operations. One of these patients paid \$1,000 for the job; the other, \$50 at the rate of \$5 a month. The \$50 meant far more to that individual than the \$1,000

\* By Chapin Hall.

did to the other patient, yet by reason of youth and inherent possibilities for future usefulness, the \$50 man is by far of greater potential value to his fellow men. Besides, compulsory anything is abhorrent to democratic ideals—even compulsory health.

#### Hire a Doctor for Two-Fifty a Month

The California Medical Association has worked out a better scheme that lacks the mass compulsion of the state plan; costs little more except that the tax is not hidden and at the same time gives those who prefer medical insurance without public exposure a chance to have it.

Under this plan the insured would pay \$2.50 a month into a professionally controlled central agency. When ill he may choose his own physician and hospital. For 50 cents a month less, or \$2, the patient gets the same service, except he must pay regular charges for the first two visits. This to discourage trivial demands upon the doctor's time.

This form of insurance, which is the Medical Association's counter proposal to the socialized, bunglestate plan, would apply at first to employed groups whose members earn no more than \$3,000 a year. It seems a far more sensible approach to a problem that has been largely whipped up from very frothy ingredients. . . . —Los Angeles Times, May 13.

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#### Hospital Bill Signed by Olson

*Nonprofit Service Groups Permitted by Johnson Measure*

Sacramento, June 14 (Exclusive).—Signing of Assembly Bill 1712, dealing with nonprofit hospital service corporations, was announced by Governor Olson today.

The bill, by Assemblyman Gardiner Johnson, amends the insurance code so as to provide that hospital associations may indemnify beneficiaries or subscribers for the cost and expense of professional medical services rendered in connection with hospitalization.

The measure permits any nonprofit hospital service corporation to merge or consolidate with any old company or corporation operating as a nonprofit hospital corporation and provides procedure. Such corporations shall be exempt from taxes other than real estate and office equipment taxes. Through the agency of this measure it is expected that hospital service can be rendered subscribers to any plan at a cost within the ability of many who now find costs almost prohibitive, according to the sponsors of the bill.

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#### Premarital Examination Bill Signed

Sacramento, June 5 (AP).—The Kenny bill, requiring a premarital syphilis test, was enacted into California law today with the signature of Governor Olson.

Under terms of the bill a judge of the Superior Court may waive the requirements or authorize a marriage even if one of the parties is infected.

Other details of the measure include:

Misrepresentation of identity or other essential facts called for on the certificate renders the person guilty of a misdemeanor, and the county clerk issuing a license in violation of the law's provisions also is guilty of a misdemeanor.

All records of the tests are private.—Los Angeles Times, June 6.

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#### Mothers to Get Syphilis Tests

Sacramento, May 11 (Special to The News).—Governor Olson today approved a bill passed by the Legislature providing for the examination of pregnant mothers to curb the spread of syphilis.

Under provisions of the measure, which will become law some time in September, licensed physicians will be required to make the prenatal tests, submit confidential reports to the state so that steps may be taken to treat the infected women to safeguard the health of the children prior to birth.—San Francisco News, May 11.

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#### Doctors Pledge Aid to City

Coöperation of the San Francisco County Medical Society and heads of various hospitals and clinics was sought and gained yesterday by the Department of Public Health in solving the problem of giving premarital examinations to local residents.

At a meeting at the Health Center building it was decided that all those who apply for marriage licenses be referred to their physicians or established clinics by the department; that physicians will charge the lowest possible fee for such examinations; that those enrolled in medical clinics shall have the examination performed there at regular clinic rates, and finally that the Department of Public Health will assist the clinics in carrying the serological burden of any

such applicant who may be judged indigent and unable to pay clinic rates.

Those meeting with Health Director J. C. Geiger were Doctors Langley Porter, Edwin Bruck, O. W. Whitecotton, L. B. Coblenz, Norman Epstein and George K. Herzog; Miss Raymonda Dawson of Mary's Help Hospital, Miss Elizabeth Senicul of St. Mary's Hospital and Miss Juliet Eisendrath of Children's Hospital.

A list of clinics is now being prepared for the marriage license bureau, Doctor Geiger said.

Belief there will be no permanent reduction in the number of marriages performed in California because of the new law was expressed by Dr. W. M. Dickie, State Health Director.

He said the only people expressing fear the law would not work and would cause people to be married out of the State were the old and middle-aged whom the law would not affect.—San Francisco Chronicle, June 22.

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#### State Medical Act Case Is Delayed

Municipal Judge Harold B. Landreth today delayed until June 21 final arguments on the probation pleas of Edward C. Hurlbert and his wife, Olive, who pleaded guilty to violating the Medical Practice Act by dispensing a so-called "sure cure" for tuberculosis.

The court instructed Deputy City Attorney John Conannon and Defense Attorney Grant Cooper to present their final arguments summing up their cases a week from today.

Hurlbert was called to the stand yesterday as one of the final witnesses for the defense to explain his alleged cure.

He said that he considered his treatment a sure cure "if the patient is not too far gone." Hurlbert denied that the name of his product, "Erus Eruc," which spells "sure cure" backwards, was intended to convince patients that they were certain to be cured in all cases.

C. E. Grier, Chairman of the San Bernardino County Board of Supervisors and staunch supporter of the Hurlbert cure, read into the record a resolution adopted by the Board urging the court to give favorable consideration to the probation appeal.—Los Angeles Evening Herald and Express, June 14.

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#### Growing Concern in Public Health

A shift in interest from education to public health is indicated by a survey of the monetary assistance granted by 243 leading foundations during 1937, the latest year for which complete figures could be had. For medical research, medical education, the erection and support of hospitals and for other purposes related to medicine and public health, these foundations granted in the year named \$13,495,893, or slightly more than one-third of their total disbursements.

Education, for many years the foremost concern of foundations, dropped to second place and received but one-fourth, or \$9,170,318, of the total gifts. The other leading fields in which foundations subsidize projects are, in the order of their importance from the standpoint of grants: social welfare, \$4,695,880; the physical and biological sciences, \$2,253,298; government and public administration, \$1,710,598; economics, \$1,353,386.

Public health is unquestionably the outstanding concern of many groups. The fact is reflected in the many proposals for government participation in its promotion. Health of the individual, health of the community, health of the nation, are among the things most to be desired. But the approach should be made with that surety which can come only with the test of experience.—Napa Register.

#### Citizen Doctor Bill to Olson

Sacramento, June 20 (INS).—Further applicants to practice medicine in California would have to be United States citizens, if a bill now before Governor Olson receives his signature.

The measure was introduced by Chester Gannon, Sacramento Assemblyman.

It provides that after July 1, 1940, all applicants wishing to be licensed by the state medical and osteopathic boards shall either be citizens or prove they were enrolled in a medical school before the 1940 date.—San Francisco Call-Bulletin, June 20.

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#### Attorneys Discuss Low Rate Legal Service

Los Angeles lawyers today were discussing proposals which have been advanced in various sections of the country for the establishment of legal service groups whose members would make small, regular payments for legal advice when needed.

Whether the American Bar Association should permit its members to serve such groups is a question that will be



debated at the annual meeting of the Association next month at San Francisco.

In a report to be presented to the meeting, the Association's Committee on Professional Ethics and Grievances reports that the volume of inquiry from persons who are considering the formation of groups for the purpose of obtaining legal services at low rates is interesting. The problem is one which the profession soon must solve, according to the committee, which states:

"There has been much discussion in recent years of the profession's duty to provide legal services for all persons at such rates as they are able to pay, and free of charge for those who are unable to pay anything.

"The idea of the free legal aid bureau has spread rapidly in recent years as the result of the profession's recognition of its duty to those who need legal service and cannot pay therefor. . . .

"But the type of enterprise about which inquiry is most frequently made contemplates an association of individuals, not necessarily unable to pay ordinary rates, for the sole purpose of obtaining for themselves legal services in return for regularly paid small membership fees. In general, such schemes contemplate advertising for, or solicitation of, prospective members of the society.

"Up to this time the view has been held that a lawyer engaged by such a society, group or other organization, may not properly render services to its members concerning their individual affairs, but is limited to serving the organization itself in respect to its group or corporate affairs.

"Whether this view will be able to maintain itself in the face of a demand by people who desire to effect a coöperative arrangement for legal services when needed, without any thought of other profit, by making small regular payments, remains to be seen. . . ."—*Los Angeles Evening Herald and Express*, June 13.

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#### University of California Medical School Tell New Heart Aid

Using a simple therapeutic process, the University of California Medical School has developed an effective cure for angina pectoris, dreaded and painful heart disease.

This was the announcement today of the medical staff, saying they felt justified in announcing the conclusion that a way has been found to check the mounting toll of incapacities from this disease.

#### Aid to Obesity

Treatment requires the use of a specially designed abdominal belt, which increases the amount of returned venous blood to the heart. The belt raises the intra-abdominal pressure, sending the blood back to the heart.

In cases of obesity, the belt further relieves the counterweight of the abdomen on the diaphragm, allowing the diaphragm to function more normally, the medical experts said.

Apparently hopeless cases have experienced return to normal activities through the use of the new treatment.

The discovery of the treatment was made possible by a Coronado woman, Lillie Spreckels Wegforth, who established a fellowship for the study of cardiovascular disease at the University.

Initial development of the process was made by Dr. William J. Kerr, head of the University Medical School, and Dr. John B. Lagen.

#### Possibilities Found

Designed at first to relieve certain lung conditions, the belt was discovered to have possibilities in treatment of heart maladies and its development as a method of curing angina pectoris followed. — *San Francisco Call-Bulletin*, May 30.

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#### California "Health Bill" Exempts Healing by Prayer\*

Sacramento, Calif.—With the approval of Governor Culbert L. Olson, an exemption clause for those who depend upon prayer for healing has been incorporated in the "health insurance" bill now before the California Legislature.

The exemption clause takes the form of an amendment to Assembly Bill 2172 and was adopted without a dissenting vote (68 to 0) by the Assembly on May 16.

Governor Olson gave his approval to the amendment as adopted in preference to others which were proposed. The text of the amendment is as follows:

"Anything in this Act contained to the contrary notwithstanding, any individual who adheres to the faith or teaching of any well-recognized religious sect, denomination or organization, and in accordance with its creed, tenets or

principles depends for healing upon prayer in the practice of religion, who is employed by any hiring unit, shall be exempted from the system of health insurance upon filing with the Medical Director an affidavit, in duplicate, stating each adherence and dependence and disclaiming any disability unemployment benefits and medical benefits under the system. Said Medical Director shall forthwith file one of said duplicate affidavits with the hiring unit employing each person and thereupon such hiring unit and the State shall, with respect to that individual, be exempted from liability for the contributions provided by sections 197, 198 and 198.5 of this Act. But this section shall not be construed as exempting any hiring unit from payment to the Health Insurance Fund of the contributions in this Act required of all hiring units not specifically exempted."

Although the above amendment was unanimously adopted by the Assembly, the "health insurance" bill has so far failed to command the support of the majority of the Assembly. The legislators by a vote of 41 to 33 have defeated a proposal to submit the State's comprehensive and compulsory health insurance plan to the voters at the 1940 general election.

Organized opposition to the measure has been actively promoted by the California State Medical Association, which is now carrying into effect its so-called "voluntary" health insurance scheme. The doctors prefer their own plan, under the supervision of medical authorities, to the more widely comprehensive compulsory plan which has the support of the existing administration in California.—*Christian Science Monitor*, May 23.

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#### Voluntary Health Service in Operation Soon

Reputation by the State Assembly of the compulsory health insurance bill sponsored by Governor Olson, indicating imminent final defeat of the measure, clears the way for Californians to take advantage of "the doctors' plan" of low-cost voluntary medical and surgical care now being rapidly developed by California Physicians Service, Monsignor Thomas J. O'Dwyer, CPS trustee, said this week.

"The whole-hearted support of California Physicians Service by more than 80 per cent of the licensed doctors of medicine in private practice has made possible tremendous strides in organizing this statewide service during the short period since March 1," said Monsignor O'Dwyer, who is vice-president of the Western Conference-Catholic Hospital Association Southern Council.

The doctors' plan will be in operation within a few weeks at a rate of \$2.50 a month covering full service with hospitalization, or \$2 with patients assuming the cost of the first two doctors' visits. This will be far in advance of the time the compulsory plan would have become operative, even if the State Assembly had not decisively voted against it last week, it was stated.

"Professional, or doctor, membership in California Physicians Service now represents fifty-seven of California's fifty-eight counties and forty counties are represented by the hospitalization associations selected to furnish hospital care," Monsignor O'Dwyer said.

"Medical districts are practically decided upon and the personnel that will administer the plan has been recommended and is rapidly being appointed."

The doctors' plan will at the outset be restricted to members of employed groups or other groups, fraternal, labor, patriotic, etc., which were organized for purposes other than solely getting medical care, but will be extended as rapidly as possible to families of group members, then to individuals. Patients will select their own doctors and hospitals from among affiliates of the service, which now numbers more than 80 per cent of both available doctors and hospitals.—*St. Helena Star*, May 26.

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#### Sidney Ehrman Urges Fair Trial Be Given Health Insurance Plan

Sidney M. Ehrman, reporting for the tax committee to the board of directors of the California State Chamber of Commerce in San Francisco yesterday, urged that a fair trial be given voluntary health insurance plans now in operation and that more facts be developed before any compulsory plan of medical care is undertaken.

Adopting the report, the State Chamber directors emphasized their position as recognizing the need for health insurance of some form or other, but not endorsing any of the plans now being tried, or as being opposed to compulsory health insurance as such. The State Chamber's opposition to health insurance legislation recently considered by the Legislature was aimed at the inequitable financial provisions of the proposal, and not health insurance itself, whether voluntary or compulsory.

Statement of the State Chamber's position is as follows: "Recognizing that there is a problem of proper medical care for lower income groups which should be faced, the

\* By a staff correspondent of *The Christian Science Monitor*.

State Chamber urges that existing voluntary plans be given opportunity for trial and that more factual information be made available to all interested groups to the end that an equitable solution may be found, and reiterates its position of opposition to the compulsory health insurance proposals now before the Legislature, principally because of their inequitable financial and tax provisions."—*San Francisco Recorder*, June 1.

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#### A Right Stand

The State Chamber of Commerce has adopted a resolution declaring the voluntary plan of the State Medical Association, designed to give better medical service to people of moderate income and means, should be tried out before adopting a tax-supported, compulsory service.

This is a right stand, for the experience of other countries has shown that state medicine means the establishment of a medical bureaucracy, the evils of which are notorious.

As California has a medical service equal to the best in the nation, there is no reason why we should not await the results of the voluntary plan to provide better service to those with low incomes. This, if successful, will insure to every family what it wants and needs—a family physician who has a personal interest in his clients.—*San Jose Mercury-Herald*, June 2.

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#### College Employees Join Hospital Plan

Pomona College recently joined with two other Southland institutions of higher learning, University of Redlands and Caltech, in permitting its employees, whether faculty or otherwise, to join the Associated Hospital Service of Southern California, "plan group" of hospital protection.

Pomona College members of the group, which is operated as a nonprofit corporation under an act of the State Legislature, are entitled to services at Pomona Valley, Upland and Covina hospitals. There is a low-rate expense involved which is paid for by the persons protected. Among features of the service is hospital care for twenty-one days each contract year without added expense.

Members of the college committee which head the local group plan are Professor Kenneth Duncan, Miss Elizabeth Kelley, Professor Roland Tileston and Professor George Burgess.—*Claremont Courier*, June 2.

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#### 35 Millions for Relief; Session Ends

By Earl C. Behrens

Sacramento, June 22.—The Legislature adjourned at 7 o'clock tonight after voting a \$35,000,000 "temporary" relief bill and after turning down practically the entire program proposed by Governor Olson. . . .

The session, 131 days, set a new record, the longest previous session, in 1933, lasting 125 days. . . .—*San Francisco Chronicle*, June 23.

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#### "Socialized Medicine" Wins Oregon Victory

Portland, Ore., June 22 (INS).—"Socialized medicine," bitterly opposed by Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*, won its first conquest in Oregon today.

Ending a four-year dispute, the Multnomah County Medical Society announced its approval of the Multnomah Medical Service Bureau, a health insurance organization whose 12,000 members pay \$2 a month for medical care.—*San Francisco Call-Bulletin*, June 22.

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#### Doctors Urge Wagner Bill Be Defeated\*

Health Measure Is Called "Extravagant and Subversive"

By Gerald G. Gross

Laying down a barrage of such descriptions as "inordinately extravagant," "visionary" and "contrary to public policy," heads of the American Medical Association yesterday urged Congress not to pass the proposed national health program.

At a hearing before the Senate Committee on Education and Labor which was marked by several spirited verbal exchanges, the spokesmen for 113,000 American physicians charged that the bill sponsored by Senator Wagner (Democrat) of New York was full of dangerous possibilities.

"The enactment of such a law would be contrary to public policy," said Dr. R. L. Sensenich of South Bend, Ind., a trustee of the American Medical Association.

"Extravagant, Subversive"

"We shall be glad to further scientific medical progress in every possible way, but we cannot fail to oppose a proposal such as S. 1620, which will supplant these high standards by

a system which is vague, visionary, inordinately extravagant and subversive of the best interests of an independent and self-reliant people," contributed Dr. R. L. Benson of Portland, Oregon, member of the Oregon State Public Welfare Commission and the State Board of Health.

"Before spending the taxpayers' hard-earned money for the wholesale building of new hospitals, would it not be well to wait until we are utilizing those we have?" asked Dr. Wingate M. Johnson of Winston-Salem, N. C., a member of the American Medical Association House of Delegates and past president of the North Carolina State Medical Society.

"The conclusion that the reduction of sickness and mortality rates awaits only large federal and state appropriations, expended under federal supervision and control, is believed to be without foundation," Dr. R. G. Leland, director of the American Medical Association's bureau of medical economics, told the committee.

#### Doctor Emerson Speaks

"It is obvious that those who have shared in drafting the Wagner bill have confused in their minds the duties or functions and capacities of the health officer with those of physicians and surgeons concerned with care of the sick," came from Dr. Haven Emerson of Columbia University.

The only witness who did not express outright opposition to the measure was Dr. Milton Robb of Detroit. At the conclusion of his prepared address, devoted solely to description of Michigan's statewide health program under the aegis of the American Medical Association, Senator Wagner asked him:

"Are you opposed to this bill?"

"I'm not sure," was the reply.

With Dr. Rock Sleyster, president of the American Medical Association, presenting the opening statement and Dr. Edward H. Cary, chairman of the legislative committee and past president, introducing the speakers, the frontal attack upon the Wagner bill was launched by a "surprise witness."—Representative Austin (Republican) of Connecticut.

Speaking as a physician who had practiced nearly thirty-five years rather than as a legislator, Representative Austin centered his objection around the designation of lay persons rather than doctors to administer the health program.

The President, the Secretary of the Treasury, and the Secretary of Labor—none is a physician, yet each is given powers under the health bill which should be delegated only to skilled professionals, Austin said.

He described the measure, which authorized appropriations of \$98,000,000 the first year, as being "pregnant with possibilities," warned that it led to federal competition with private enterprise and gave it as his opinion that the medical care need which the bill would meet is exaggerated.

The liveliest exchange of the day was between Doctor Sensenich and Senator Ellender of Louisiana. The former was sure that the proposed legislation would make Washington the country's medical dictator. The senator denied that the bill contained such authority, "but if it does I'll never vote for it."

Senator Wagner interposed a short speech in which he denied that his bill was drafted with any intent of federal interference with the states. In spite of skillful oratorical parrying, he failed to shake any constructive suggestions out of Doctor Sensenich. At one point, when it appeared that Wagner might get the doctor to approve the bill if certain changes were made, Doctor Cary gave a signal from the "coaching line" warning the witness to make no concession.

They will conclude their testimony this morning when Dr. Morris Fishbein, editor of the Association's famous journal, and Dr. Gordon Heyd of New York, a past president of the American Medical Association, go before the committee.—Washington, D. C., *Post*, May 26.

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*Picking Tick Off Husband Causes Death from Rocky Mountain Spotted Fever.*—A fatal case of Rocky Mountain spotted fever, in which a woman was apparently infected by picking a tick off her husband, is reported in *The Journal of the American Medical Association* for May 6, by E. Herbert Bauersfeld, M. D., Washington, D. C. Her husband remained in good health. Doctor Bauersfeld says he does not know whether she mashed the tick in her fingers. "R. E. Dyer, M. D., has traced the source of infection in several cases to mashing ticks between the fingers after removing them from dogs," the author says.

\* For editorial comment, see page 4.



## MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.  
San Francisco

### MALPRACTICE: NEGLIGENCE MAY NOT BE INFERRED MERELY BECAUSE THE ALLEGED INJURY OCCURRED DURING MAJOR SURGERY

Until a few years ago there were no appreciable exceptions to the general rule that negligence on the part of a physician must be affirmatively proved by means of expert testimony. In the past decade, however, one material exception steadily grew until it became a serious menace to the medical profession. The exception of which we speak is the legal doctrine known as *res ipsa loquitur*. This doctrine, *i. e.*, the thing speaks for itself, when applied to malpractice cases, means for all practical purposes that a plaintiff may create an inference of negligence merely by showing that a bad result occurred. The doctrine was first applied to x-ray burns and then was gradually extended to other situations (*e. g.*, failure to remove sponges), until it seemed likely that an inference of negligence would exist as a matter of law whenever an alleged injury occurred during major surgery.

For over a decade the trend of judicial decisions has been to extend the *res ipsa loquitur* rule in malpractice cases. At last, however, the California Supreme Court has reversed this trend. The case in which this reversal occurred is *Engelking vs. Carlson*, 97 Cal. Dec. 364, which was decided March 24, 1939. It is of such importance that its facts and the rules of law announced by the Court will be set forth in detail.

#### Facts.

Engelking fell off a ladder and injured his left knee. Doctor Carlson subsequently determined that an operation was necessary for the purpose of correcting a resultant instability in the knee. The operation was performed and thereafter Engelking began to suffer from a "foot drop." He brought suit against Doctor Carlson. Upon examination by another physician, it was found that the external peroneal nerve had been severed in the vicinity of the knee.

Doctor Carlson testified that the operation involved the removal of damaged portions of certain ligaments and the substitution therefor of new material obtained by cutting sections from the fascia lata and the biceps muscle of the left leg. Engelking was, of course, anesthetized and unconscious during the operation. The muscles and tissues surrounding the peroneal nerve were held aside and drawn back, during the operation, by blunt retractors which were adjusted by Doctor Carlson and retained in position by his assistant. After the operation a check was made to see whether the nerve was cut and no severance was found. Doctor Carlson stated that the nerve was not sutured because he felt that was not necessary.

It was admitted that the foot drop proximately resulted from the severance of the peroneal nerve. The actual cause of the severance was not directly ascertained during the trial.

The plaintiff contended that proof that the nerve was severed and that the plaintiff was unconscious during the operation gave rise to an inference of negligence (that is to say, application of the doctrine of *res ipsa loquitur*) and that it was up to the doctor to convince the jury that he had not been negligent.

There was expert testimony to the effect that severance of the external peroneal nerve is "one of the difficulties of

surgery" and that severance occurs in about one case out of twenty, regardless of the care and skill exercised by the operating surgeon.

#### History of the Case on Appeal.

The trial court at the conclusion of the testimony granted the motion of counsel for the doctor that the jury be directed to return a verdict in favor of the defendant. Accordingly, a judgment in favor of defendant was entered. The plaintiff then appealed to the District Court of Appeal and that court reversed the judgment of the trial court. The District Court of Appeal stated that, as the plaintiff was unconscious at the time of the alleged injury and hence could know nothing of what occurred, the doctrine of *res ipsa loquitur* was applicable and there was an inference of negligence which should have been passed upon by the jury.

After the decision of the District Court of Appeal, a petition was filed in the California Supreme Court requesting that the case be heard before that court. The writer and his associate, Mr. Hassard, prepared and filed a brief as *amici curiæ* in support of the petition for a hearing in the Supreme Court. The Supreme Court granted the petition and ordered the case transferred to it for final decision.

#### Decision of the California Supreme Court.

After the presentation of the case by means of briefs and oral argument, the Supreme Court rendered its decision affirming the judgment of the trial court (and, of course, reversing the decision of the District Court of Appeal). The theory upon which the Supreme Court proceeded is succinctly set forth in its opinion, written by Justice Douglas L. Edmonds of Los Angeles, from which we quote:

... Conceding that the evidence stands undisputed, the plaintiff contends that it justifies an inference of negligence under the doctrine of *res ipsa loquitur*. He insists that he was unconscious; that the defendants had charge of the operation; that the result suffered by him does not ordinarily occur; and that in the absence of an explanation by the defendants justifying a verdict in their favor upon the ground that they were not negligent, they are liable to him in damages.

If this were the rule, as a practical proposition, no surgeon could ever operate without being an insurer of a medically satisfactory result. The medical testimony in this case shows without any contradiction whatever that, although the severance of the peroneal nerve is something which ordinarily does not occur in operations such as that performed by Doctor Carlson, yet even when the precautions prescribed by the approved technique are taken, there is a break of or injury to it in between five and nine per cent of the cases. There is nothing startling about such evidence, and it affords no basis for the recovery of damages against a surgeon. Probably in every operation there is some hazard which the medical profession recognizes and guards against but which is not always overcome. To say that the doctrine of *res ipsa loquitur* allows the recovery of damages in every case where an injury does not ordinarily occur, would place a burden upon the medical profession which the law has not heretofore laid upon it. Moreover, such a rule is not justified by either reason or authority.

The law has never held a physician or surgeon liable for every untoward result which may occur in medical practice. It requires only that he shall have the degree of learning and skill ordinarily possessed by physicians of good standing practicing in the same locality and that he shall use ordinary care and diligence in applying that learning and skill to the treatment of his patient. Whether he has done so in a particular case is a question for experts and can be established only by their testimony. And when the matter in issue is one within the knowledge of experts only and is not within the common knowledge of laymen, the expert evidence is conclusive. Negligence on the part of a physician or surgeon will not be presumed; it must be affirmatively proved. On the contrary, in the absence of expert evidence, it will be presumed that a physician or surgeon exercised the ordinary care and skill required of him in treating his patient.

It is true that in a restricted class of cases the courts have applied the doctrine of *res ipsa loquitur* in malpractice cases. But it has only been invoked where a layman is able to say as a matter of common knowledge and observation that the consequences of professional treatment were not

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

such as ordinarily would have followed if due care had been exercised. . . . But the present case shows an entirely different situation. Here what was done lies outside the realm of the layman's experience. Medical evidence is required to show not only what occurred, but how and why it occurred. That evidence establishes beyond question not only that the peroneal nerve may be injured even where due care is used, but that this unfortunate result invariably occurs in a limited number of cases. The doctrine of *res ipsa loquitur* is, therefore, entirely inapplicable and no malpractice has been proved.

Accordingly, it is now the law in California that malpractice must be proved by expert testimony and that there is no inference of negligence against a physician, except in those few and unusual situations in which it can reasonably be said that, as a matter of common knowledge and observation, an injury would not have occurred unless someone had been negligent. For the first time in a number of years it can be stated that it is a rule of law that mere occurrence of an injury during a surgical operation does not give rise to an inference of negligence.

## SPECIAL ARTICLES

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### ANTERIOR POLIOMYELITIS\*†

Round-Table Discussion Over the Radio: Conducted by Dr. J. C. Geiger, Director of Public Health, City and County of San Francisco

*Dr. Geiger:*

Before we begin to discuss the disease itself in humans, I feel we should have a clearer understanding of the laboratory side. Doctor Meyer, will you summarize the present status of poliomyelitis in the field of experimental research?

#### EXPERIMENTAL RESEARCH CONCERNING POLIOMYELITIS

*Dr. Meyer:*

That is a difficult question to answer directly, since we are still baffled by the simple question, "What is the disease agent in infantile paralysis?" We find this disease agent in the brain and the spinal cord, but we do not know whether it is a living germ or something else growing in the cells of the brain. We cannot isolate it like a germ in a test tube, and it is too small to be seen with a microscope. There is only one species of animal—the Old World monkey—in which we can induce the same disease as seen in children. Yet these monkeys are not as susceptible as man, since there is no record of one monkey catching the infection from another monkey by exposure. Many tests have been made to develop a vaccine, but the outlook is not very promising. We now use the serum of recovered cases discovered early, to stop the progress of the disease and paralysis, but we

are not sure that this treatment is effective. There is some hope that a better treatment may be found. Recently, some experiments have been made to see if disturbances in the endocrine glands affect the susceptibility. Some very suggestive observations have been made and, personally, I feel that these studies are very important.

*Dr. Geiger:*

Well, if we do not know a great deal about the disease itself, do we know anything about the mode of its spread?

*Dr. Meyer:*

In answering this question, let me say frankly that theories are numerous but facts are few. It is assumed that the disease agent is discharged from the mouth and nose, and enters the body through the same channels. Thus, direct exposure of the healthy with the diseased should convey the infection; but the lack of spread in families, schools and crowded places, throws doubt on this explanation. The fact that several cases may occur in the family indicates some hereditary disposition may play a rôle. But this does not explain why infantile paralysis appears toward the end of the summer in the temperate zone, and is rarely ever seen in the tropics. Then there is some suspicion that raw milk may spread it. In a summary from our meager knowledge, it seems that infantile paralysis may be disseminated in more than one way. We must know more about it before we can expect the introduction of an effective system of prevention.

*Dr. Geiger:*

Will you discuss the communicability of the disease during the time of an outbreak and also at other times?

*Dr. Meyer:*

It is a favorite theory that infantile paralysis is very contagious and much more widespread than indicated by the number of cases actually diagnosed. Most children pass through a mild non-paralytic infection, which is not recognized but does leave protection or immunity. These missed patients, though not suffering from the disease itself, may act as carriers. Thus, infantile paralysis is a very common infection, which is always with us even during nonepidemic periods, and for reasons unknown it may develop to epidemic proportions at intervals of from two to four years.

*Dr. Geiger:*

Thank you very much, Doctor Meyer. Now, Miss Howitt, will you tell us something about the nature of the virus which causes poliomyelitis and its relationship to viruses in general?

#### CONCERNING VIRUSES

*Miss Howitt:*

The virus causing poliomyelitis, as has been said, is so small that it cannot be seen under the microscope, but is identified by its specific paralyzing effect upon the muscles of the body. It is called a filter-passing virus because the disease-producing agent will pass through very fine filters that hold back visible bacteria. By certain refined methods

\* This radio broadcast was given on January 18, 1938. Those who took part in the broadcast included Doctors J. C. Geiger, Karl F. Meyer, Emmett E. Sappington, Paul S. Barrett, R. W. Burlingame, all of San Francisco; Dr. E. W. Schultz of Stanford University; Miss B. S. Howitt of San Francisco.

† This issue contains several articles on Poliomyelitis, given in a symposium at Del Monte. See pages 12, 16, 19, and 23.



it has been shown to have a size of about five ten-millionths of an inch, being smaller than the infectious agents causing either cold sores or smallpox, but nearer in size to the one causing the St. Louis encephalitis, which is about one-millionth of an inch.

*Dr. Geiger:*

And I suppose it may be said that, just as there are many varieties of roses, so it has been found that occasionally a virus may be similarly subdivided within its own group.

*Miss Howitt:*

Yes, as is the case with encephalitis, one variety being found in this country and another in Japan. Each kind may cause the same type of disease, but may differ only by inducing certain responses. The serum made from one variety may not prevent or cure this disease caused by another. It is now thought that perhaps the virus of poliomyelitis may also be divided into different varieties. For instance, one obtained from a case in a distant locality seems to have certain slight variations from one isolated here in San Francisco. Further research is necessary to prove if these differences may not occur more often than has been shown in the past for this disease, because if serum should be used in its treatment the particular variety ought to be known.

*Dr. Geiger:*

Thank you very much, Miss Howitt. With that information, let us proceed to the consideration of the disease as we see it in human beings. Doctor Sappington, will you briefly outline the epidemiology of infantile paralysis as used in the field?

#### EPIDEMIOLOGY

*Dr. Sappington:*

As Doctor Meyer said, the main, if not the only avenue of spread of this disease is by dissemination of nose and throat secretions from latent or missed cases, or from healthy carriers. The transfer of the virus by way of food, particularly milk, is a possibility, but rarely occurs. Modern epidemiology attempts to trace each case to its source of infection. This means a careful follow-up study in every family known to have a case or a contact. Epidemiology also includes analysis of the more general circumstances under which the disease occurs, including the effect of age, sex, rural preponderance, and seasonal prevalence. The information gained from epidemiological studies is used in formulating measures to control the disease.

*Dr. Geiger:*

Thank you, Doctor Sappington. Now, our attention should be directed toward making a diagnosis, so Doctor Barrett, will you enumerate briefly some of the symptoms which would lead to a diagnosis of anterior poliomyelitis?

#### DIAGNOSIS

*Dr. Barrett:*

In the beginning it resembles many other contagious diseases. A child that has been well becomes restless or drowsy. He is feverish, irritable,

and doesn't want to be moved. He is apt to vomit once or twice, and may complain of headache or pain in the back, or in the back of the neck. He is likely to be constipated, but may have diarrhea. More significant are a sore, stiff neck and spine and pains in the back, arms and legs.

*Dr. Geiger:*

Many of these symptoms are not unlike those in the common upsets to which children are subject, but would you not say that the most serious sign is the stiffness of the spine and neck, the child being unable to bend them forward?

*Dr. Barrett:*

Yes, indeed; sometimes these early symptoms may be very mild and yet, within from twenty-four to seventy-two hours, the child may be unable to move an arm or a leg. Again he may be unmistakably sick with the first stages of this disease, but develop little or no paralysis. Sometimes a child may have so mild a case that the attack is scarcely noticed, and yet he may spread the contagion to other children.

*Dr. Geiger:*

With a diagnosis having been made or suspected, Doctor Burlingame, will you tell us the procedure which is followed out in the Health Department?

#### HEALTH DEPARTMENT PROCEDURES

*Dr. Burlingame:*

The isolation ambulance is immediately sent for the patient, and a nurse, properly masked, goes along to take the patient's history, list of contacts, etc. This list is sent to the Bureau of Communicable Diseases.

*Dr. Geiger:*

After entrance, what disposal is made of the patient?

*Dr. Burlingame:*

The patient is placed in a disinfected room already prepared, and an examination to determine the patient's condition is made at once. This examination consists of the general condition of the patient, blood, spinal fluid examination, and extent of paralysis, if any.

*Dr. Geiger:*

Of what does the treatment consist?

#### TREATMENT

*Dr. Burlingame:*

The general treatment consists of bed rest and cleanliness. Special treatments are given as indicated by the symptoms. If the patient gives evidence that the paralytic stage has not been reached, or that paralysis is present and still progressing, the serum from patients already recovered from infantile paralysis is administered. If there is the least sign of paralysis of the respiratory muscles, the patient is placed in the "iron lung."

*Dr. Geiger:*

What other treatment is given?

*Dr. Burlingame:*

This depends upon symptoms as they arise during the illness. Splints and casts are applied where necessary to prevent deformities due to contraction of muscles and groups of muscles.

## AFTER-TREATMENT

*Dr. Geiger:*

We hear much about the value of swimming pools and baths for the after-treatment. Will you explain something about the application of hydrotherapy?

*Dr. Burlingame:*

Swimming does not take the place of localized muscle training, and may even cause harmful contractions in the muscles which oppose the weaker, paralyzed muscles. Treatment in water has no more specific value than table treatment, but it is a pleasant way of doing exercises. The buoyancy of the water allows weak muscles to perform their function more easily than is possible otherwise.

## PREVENTIVE MEASURES

*Dr. Geiger:*

We have discussed the disease, its mode of spread, and the diagnosis and treatment, but I know that we are all interested in certain aspects of its prevention. Doctor Schultz, what is the present status of the experimental use of chemical agents in monkeys to prevent poliomyelitis?

*Dr. Schultz:*

It is now well established that certain chemicals applied to the olfactory area, high in the nose, will protect monkeys for one month or more against heavy exposure to the virus of this disease. Some chemicals are much more protective than others.

*Dr. Geiger:*

What, in your opinion, is the practicability of the adaption of this method to human beings at the time of an outbreak of the disease?

*Dr. Schultz:*

This question is difficult to answer, since it must be considered from several standpoints. In the first place, the olfactory area, through which the virus apparently passes to the nervous system, is rather hard to reach and, until recently, the technical difficulties of applying the solution seemed too great to make this measure promising from a practical standpoint. However, the results of recent studies in several clinics seem to show that when the head is held in a certain position, measured amounts of solution properly instilled into the nose will flow quite selectively into the superior nasal space and cover the olfactory area. This new method is simpler to apply than the spray method employed last summer, and can probably be carried out by any physician or public health worker after a little instruction. It should be remembered that the solution must cover completely all of the olfactory area. Evidence that this has been accomplished is a loss of the sense of smell. Since in children this function almost always returns within two weeks, the treatments would probably have to be repeated at short intervals. In older children, and especially

in adults, loss of this function is regained more slowly, and while we cannot yet say that anyone has suffered a permanent loss of the sense of smell, a few have regained it only after several months. Therefore, the practicability of such a measure revolves in part around the possible risk of inducing a permanent loss of the sense of smell. Finally, it should be clearly understood that we still do not know whether this measure, which is so highly effective in monkeys, also affords protection in man.

*Dr. Geiger:*

I agree with you, Doctor Schultz, and that is the reason the Department of Public Health will continue to observe the rules of isolation and quarantine of all cases and contacts as heretofore, with the use of convalescent serum early in the disease as the best recognized method of treatment. And now I wish to thank you all for your participation in this program. I am sure the discussion has been extremely profitable to our radio audience.

## ESSENTIALS OF A REGISTERED HOSPITAL\*

*General Statement.*—The American Medical Association gives recognition to hospitals by admitting to the Hospital Register those that are found to qualify according to the essentials contained in the following paragraphs.

Registration is a basic distinction between all recognized hospitals and those that are refused recognition. It is a prerequisite to the consideration of a hospital for approval for interns or for residencies in specialties.

The registration of hospitals, the approval of hospitals for interns, approval for residencies in specialties, and all other service of the Association regarding hospitals is carried on by the Council on Medical Education and Hospitals.

It is the desire of the Council to coöperate in every way for the improvement of hospital service, whereby the sick and injured may be provided with scientific and ethical medical care.

The Council does not have nor does it assume legal authority over any hospital. It recognizes clearly that the officers in charge of such institutions have the unquestioned right to conduct the hospitals in any way they may deem wise. If a hospital desires to have its name appear on the American Medical Association Hospital Register and thus have the endorsement of that Association, it should be willing to comply with the principles which the Council on Medical Education and Hospitals considers necessary.

*Essentials of a Registered Hospital.*—Hospitals seeking admission to the register should have the following qualifications:

1. *Organization.*—The organization should consist of a board of trustees or other supreme governing body having final authority and responsibility and an executive officer or superintendent to carry out the policies adopted by the governing body. The executive officer should be assisted by adequate competent personnel.

Regardless of the form of organization, the hospital should function primarily in the interests of the sick and injured of the community.

2. *Staff.*—This constitutes the most important essential. The staff should be organized and composed of regular physicians who are properly qualified as to training, licensure, and ethical standing.

Staff membership and the use of the hospital's facilities must be limited to doctors in medicine. Where cult prac-

\* Prepared by the Council on Medical Education and Hospitals of the American Medical Association.



tioners, osteopaths, chiropractors or other healers outside the scope of regular medicine are allowed to use the hospital's diagnostic facilities, to prescribe for or treat patients in the hospital, or to enter orders or other data on the case records, such a hospital obviously cannot be recognized or endorsed by the American Medical Association.

Regular staff conferences should be held at least monthly and preferably more often. All deaths that occur during the period intervening between meetings, perplexing cases, and patients who do not respond to treatment should be discussed. When postmortem examinations have been performed, there should be a presentation of the clinical aspect of the patient and the postmortem observations. Interesting pathologic specimens from surgery or removed at postmortem should be presented and discussed with regard to the preoperative or antemortem findings.

Minutes of staff conferences should be kept and filed with the hospital records. The activity of the staff as to scientific meetings and clinical and pathologic conferences is an index to the scientific mindedness and progressiveness of the group.

3. *Nurses.*—A competent nursing staff should be provided by employing an adequate number of registered nurses who are graduates of schools of nursing recognized by the state board of nurse examiners, or by maintaining such a school.

All nursing should be supervised by qualified registered graduates.

4. *Records.*—An adequate record system should be maintained. No particular system or set of forms is recommended, since requirements are not the same under varying circumstances. The average case record should include at least a brief medical history, physical examination, laboratory reports, diagnosis, operative record, progress notes, nurses' notes and summary. Case records should be complete in every department and reviewed and signed by the attending physicians before they are placed in the permanent file. Roentgenologic interpretations, pathologic descriptions and diagnoses of tissues removed in the operating room, and (when an autopsy has been performed) a description of postmortem observations, should be included with the patient's record.

Case histories and physical examinations should be recorded in the patient's chart within twenty-four hours after the patient has been admitted to the hospital. A patient should not be operated upon, except in the case of emergency, when the history, physical examination and routine laboratory work have not been completely recorded in the chart. The duty of recording these data falls on the attending physician and he should be held directly responsible for the case records.

Monthly and annual analyses of hospital service should be made in order that the staff may be in a position to improve its service.

5. *Pharmacy.*—The handling of drugs should be adequately supervised and should comply with state laws.

6. *Pathology.*—The hospital should provide or have ready access to laboratory facilities in accordance with its needs. All tissues removed in the operating room should be examined, described and diagnosed by a competent pathologist excepting tissues, such as tonsils and teeth, in which the pathologic changes are quite obvious.

A physician-pathologist qualified by training and experience to supervise the laboratory service and interpret tissue pathology should be employed on a full-time or part-time basis. When this is not practicable, arrangements should be made with a consulting pathologist for tissue diagnosis, postmortem work and the interpretation of the more complicated tests and determinations in clinical and surgical pathology, as well as in general clinical laboratory work. Preferably the pathologist should be a physician who holds a certificate of the American Board of Pathology.

*Autopsies.*—Every effort should be made to secure consent for autopsies which should be performed by a competent pathologist.

7. *Radiology.*—The hospital should provide or have ready access to radiologic equipment and service. When a full-time or part-time physician-roentgenologist cannot be employed, the services of such a consultant should be secured. Radiologic interpretations must be made only by a competent roentgenologist. A description of the roentgenologic examinations should be placed in the patient's chart.

The radiologist should be a physician who is qualified by training and experience to supervise the work of the department and furnish radiologic interpretations and reports; preferably he should be one who holds a certificate of the American Board of Radiology.

8. *Ethics.*—In order that a hospital may be eligible for registration it will, of course, be expected that the staff and management conform to the principles of medical ethics of the American Medical Association with regard to advertising, commissions, division of fees, secret remedies, extravagant claims, overcommercialization, and in all other respects.

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*Wagner Bill on National Health Program.*—"On February 28 Senator Wagner of New York introduced in the Senate a bill for the carrying out of some of the phases of the National Health Program," *The Journal of the American Medical Association* reports.

"In the proposed bill Senator Wagner offers a series of amendments to the Social Security Act calling for an expenditure of Federal funds amounting to \$80,000,000 the first year with gradual increases over a ten-year period for the purpose of establishing, expanding and improving state programs for '(1) child and maternal care; (2) general public health services and investigations; (3) construction of needed hospitals and health centers; (4) general programs of medical care, and (5) insurance against the loss of wages during periods of temporary disability.' Senator Wagner said in an interview that it 'should be clearly understood that the bill does not establish a system of health insurance or require the state to do so.' Funds would be made available under this bill to 'those localities and states which are in the greatest need of the services,' the size of the grants being determined on a variable matching basis, depending on the relative financial resources of the several states as determined by the per capita income of their inhabitants.' It is not possible at this time to offer a complete analysis of the details of the proposed legislation. Obviously, it will be necessary for suitable committees of the Congress to give careful consideration to the proposals. While the sum announced—namely, \$80,000,000 annually—is not large as compared with an annual expenditure of \$850,000,000 ultimately proposed by the National Health Program, it represents nevertheless a considerable sum. Senators interested in an economy rather than a spending program have already announced opposition."

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*Warns Against Tying Off External Carotid Artery.*—Only the external carotid artery (the principal artery of the neck) should be tied off for otherwise uncontrollable profuse nasal hemorrhages, J. L. Fetterman, M.D., and W. H. Pritchard, M.D., Cleveland, warn in *The Journal of the American Medical Association* for April 8.

Their warning is based on a case in which not only the left external, but also the left internal carotid artery was tied off. Following this ligation or tying off, convulsions, impairment of intelligence, defection in the understanding of the written or spoken word, numbness of the left side of the body, and one-sided paralysis resulted. Insufficient blood supply on the left side of the brain was the chief cause of these symptoms.

# NEW CALIFORNIA LAWS REQUIRE PRENATAL AND PREMARITAL TESTS\*

## PRENATAL EXAMINATIONS

### CHAPTER 127

*An act providing for the protection of unborn children and the public health by requiring examinations of pregnant or recently delivered women for syphilis, providing penalties for the violation of the provisions thereof.*

[Approved by the Governor on May 9, 1939]

*The people of the State of California do enact as follows:*

Section 1. Every licensed physician and surgeon or other person engaged in prenatal care of a pregnant woman or attending such woman at the time of delivery shall obtain or cause to be obtained a blood specimen of that pregnant or recently delivered woman, at the time of the first professional visit or within ten days thereafter. The blood specimen thus obtained shall be submitted to an approved laboratory for a standard laboratory test for syphilis. For the purposes of this act, an approved laboratory shall be a laboratory approved by the California State Department of Public Health, or any other laboratory, the director of which is licensed by said State Department of Public Health according to law. In submitting such specimen to the laboratory the physician shall designate that this is a prenatal test or a test following recent delivery.

Sec. 2. For the purpose of this act a standard laboratory blood test shall be a test for syphilis approved by the California State Department of Public Health. In case of question concerning accuracy of tests prescribed in this act, it shall be mandatory upon the State Department of Public Health to accept specimens for checking purposes from any district in the State.

Sec. 3. The California State Department of Public Health shall issue a "Prenatal Test Laboratory Report Form" to be distributed upon application to all laboratories approved to do tests called for in this act. Any laboratory doing tests called for in this act shall prepare the report in triplicate. The original of this report shall be transmitted by the laboratory doing such test to the physician submitting the specimen. The duplicate reports shall be forwarded at weekly intervals to the California State Department of Public Health. The triplicate shall be retained by the laboratory for file and shall be open at any time for inspection by an authorized representative of the California State Department of Public Health.

Sec. 4. All laboratory reports shall be confidential and shall not be open to public inspection.

Sec. 5. Any licensed physician and surgeon, or other person engaged in attendance upon a pregnant woman or a recently delivered woman, or any representative of a laboratory who violates the provisions of this act shall be guilty of a misdemeanor; provided, however, every licensed physician and surgeon or other person engaged in attendance upon a pregnant or recently delivered woman, who requests such specimen in accordance with the provisions of Section 1, and whose request is refused, shall not be guilty of a misdemeanor.

(Continued in Front Advertising Section, Page 16)

\* Governor Olson, on May 9, signed a bill (A. B. 493) introduced by Assemblymen Hugh M. Burns, Heisinger, Garland, Kepple, Kilpatrick, Corwin, Dilworth, Redwine, Knight, Mrs. Daley, and Miss Eleanor Miller, which requires prenatal tests for syphilis. This bill is now Chapter 127, Acts of 1939.

On June 5 Governor Olson signed Senate Bill 173, introduced by Senators Fletcher, Biggar, and Kenny, which requires premarital tests for syphilis. This bill is now Chapter 382, Acts of 1939. Both of these new laws will become effective ninety days after the adjournment of the Legislature. Because of their importance, and because of the widespread interest in the measures, both are reproduced in this issue of CALIFORNIA AND WESTERN MEDICINE.

See also editorial comment in this issue, on page 6; for press clipping items, on page 63.

## PREMARITAL EXAMINATIONS

### CHAPTER 382

*An act to add Article IIa to Chapter I, Title I, Part III, Division First of the Civil Code, for the protection of unborn children and the public health by providing for premarital examinations for syphilis, and providing penalties for violations of the provisions thereof and providing an appropriation for the administration of the act.*

[Approved by the Governor on June 5, 1939]

*The people of the State of California do enact as follows:*

Section 1. A new article, to be numbered Article IIa, is hereby added to Chapter I, Title I, Part III, Division First of the Civil Code, to read as follows:

### Article IIa. Premarital Examinations

79.01. Before any person, who is or may hereafter be authorized by law to issue marriage licenses, shall issue any such license, each applicant therefor shall file with him a certificate from a duly licensed physician which certificate shall state that the applicant has been given such examination, including a standard serological test, as may be necessary for the discovery of syphilis, made not more than thirty days prior to the date of issuance of such license, and that, in the opinion of such physician, the person either is not infected with syphilis, or if so infected, is not in a stage of that disease which is or may become communicable to the marital partner.

Any person who by law is validly able to obtain a marriage license in the State of California is validly able to give consent to any examinations and tests required by this article. In submitting the blood specimen to the laboratory the physician shall designate that this is a premarital test.

79.02. The certificate shall be accompanied by a statement from the person in charge of the laboratory making the test, or from some other person authorized to make such reports, setting forth the name of the test, the date it was made, the name and address of the physician to whom the test was sent and the name and address of the person whose blood was tested.

79.03. The certificate of a physician and the statement from a person in charge of a laboratory or from a person authorized to make reports for the laboratory shall be on a form to be provided and distributed by the California State Department of Public Health to all officers in the State authorized to issue marriage licenses and to laboratories in the State approved by the California State Department of Public Health. This form is hereinafter referred to in this article as "the certificate form."

79.04. For the purpose of this act a standard serological test shall be a test for syphilis approved by the California State Department of Public Health and an approved laboratory shall be a laboratory approved by the California State Department of Public Health, or any other laboratory the director of which is licensed by said State Department of Public Health according to law. In case of question concerning accuracy of tests prescribed in this article, it shall be mandatory upon the State Department of Public Health to accept specimens for checking purposes from any district in the State.

79.05. The California State Department of Public Health shall issue a "Laboratory Report Form" to be distributed upon application to all laboratories approved to do tests called for in this article. Any laboratory doing tests called for in this article shall prepare the report in triplicate. The original of this report shall be transmitted by

(Continued in Front Advertising Section, Page 16)



## TWENTY-FIVE YEARS AGO†

### EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XII, No. 7, July, 1914

*From Some Editorial Notes:*

*Eliminating the Unqualified.*—The interesting condition of unrest which the Journal has commented upon quite frequently during the past two years, and which has been so evident to all observers of sociologic conditions, is, as Favill puts it, bound to result in many betterments though just how the result is to be reached may not at first be apparent. As the meaning of a word may, in time, be quite reversed through usage, so many of the ultimate developments of what may at first appear to be vicious to a given individual, from his point of view, may prove to be distinct advances in the welfare of all the people. For example, consider industrial accident insurance, and what will surely follow it before many years have passed, sickness insurance. There is room for honest difference of opinion as to whether this is a sociologic betterment or not. There is plenty of room for honest difference of opinion as to whether it is to be an advantage to the medical profession or a great harm; time alone will tell the true answer to these questions. In one way, however, it certainly seems to promise a decided advance for the injured working person, and, as he is so numerous, that means an advance for nearly all the people. . . .

† † †

*No City License for Physicians.*—An attempt by a California city to compel physicians to pay a city license tax on the practice of their profession within its limits was defeated May 18 last, when Judge F. G. Finlayson of the Superior Court of Los Angeles pronounced the city ordinance in question unconstitutional. . . .

† † †

*Take a Vacation.*—If you have not done it already, do it as soon as you can; take a vacation. Get away from the routine; go somewhere, anywhere, but preferably near the earth. No one leads such a narrowing life as the physician and no one needs to get completely away from it every once in a while as does the doctor. He is eternally thinking and talking his shop. When two or three doctors are gathered together, they invariably begin to talk "shop"; they cannot keep away from it, so when you go on your vacation do not go with another doctor. Anyone who does not get away from his own little path in life once in a while, gets stale; and it is not a good thing for your patients for you to get stale.

† † †

*Another Word of Appreciation.*—A member living in Los Angeles, who was recently one of the defendants in a very bitterly fought suit for damages for alleged malpractice, which suit was defended and won by the legal department of the State Society, writes, in part, as follows:

"It was a great relief when the suit was concluded in our favor. Such a case would make one appreciate the backing of the State Medical Society, if one needed stimulation for such appreciation. I wish to say further that the attorney for the State Society (in Los Angeles), Mr. Morrow, is, in my opinion, a real lawyer and a fine man, and the Society is fortunate in having his services at its command."

† † †

*Some More Arguments.*—The last number of the program of the San Francisco County Medical Society pre-

(Continued in Front Advertising Section, Page 20)

†This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

## BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M. D.

Secretary-Treasurer

### News

"When the people of California vote on 'Ham 'n Eggs' at a special election they will cast their ballots also on another initiative—the 'Chiropractic Act.' That measure has qualified, and it is mandatory that it be on the ballot at the first state-wide election. While the Governor has not fixed the date for the special election, he has promised the 'Ham and Eggs' legions it will be quite some time in the future. Secretary of State Jordan said today that the mechanical requirements make it necessary for eighty or ninety days to intervene between the official call by the Governor and the date of election. . . ." (*Monrovia Journal*, May 25, 1939.)

"The Senate has completed legislative action on a bill by Assemblyman Hugh M. Burns of Fresno County and Ben Rosenthal of Los Angeles County, which would make the sale of reducing preparations containing dinitrophenol a felony. . . . Another Burns-Rosenthal bill, passed by the Senate yesterday, A. B. 1019, would make it a felony to sell eyelash preparations containing diphenylamine. . . ." (*Los Angeles Examiner*, May 31, 1939.)

"Attorney-General Earl Warren has ruled that licensed physicians and surgeons cannot practice veterinary medicine without first obtaining a license from the State Board of Examiners in veterinary medicine. The opinion cited one exception—a licensed physician and surgeon 'may assist an animal or practice veterinary medicine upon animals of which he is the owner' in 'emergency cases.'" (*Sacramento Bee*, May 15, 1939.)

On May 26, 1939, the Appellate Division of the Superior Court of the City and County of San Francisco rendered a decision affirming the judgment of the Municipal Court rendered after jury trial March 3, 1939, finding Bilton Brunings, a licensed optometrist, guilty of violation of the Business and Professions Code relating to the practice of medicine, following which he was sentenced to pay a fine of \$150, with an alternative sentence of thirty days in the county jail.

Investigation reports relate that George Andrew Hunt, assertedly doing business in Oakland as a naprapath, on June 2, 1939, pleaded guilty to a violation of the Business and Professions Code relating to the practice of medicine and was placed on one year's probation, on condition that he pay a fine of \$150 and "discontinue allowing himself to be called 'Doctor' and desist from further violation of the Business and Professions Code."

"Officials investigating San Diego's 'smuggled body' murder today awaited reports from officers sent to Luling, Texas, to exhume the body of Martha Wilma Anderson, sixteen-year-old victim. Meanwhile a new suspect was arrested in Eugene, Oregon. Frank McKinley Parchen said he would resist extradition after Oregon authorities had

(Continued in Front Advertising Section, Page 28)

†The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.



***Baxter's are as safe when you use them  
as the day they were made***

Baxter purity . . . Baxter safety . . . are guarded at the laboratory . . . guarded by rigid tests and inspections as exacting as we can devise.

Then this safety is enclosed . . . sealed in a high vacuum by a tamper-proof metal closure . . . Baxter's Dextrose and Saline Solutions are as sterile when they flow into your patients' veins as the day they were made. They are safe to use. They give you peace of mind. They're packed in Baxter's Vacoliter's.

Days in transit . . . months of storage . . . cannot change the satisfying *essential purity* of these *Vacoliter protected* solutions.

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On May 20, 1939, a complaint was filed in the city court, city of Beverly Hills, charging Romano N. Trotsky, alias Alexis Romanoff, alias Romany Lukian with violation of the Business and Professions Code relating to the practice of medicine. "Under date of May 26, 1939, Lukian, who was apprehended by the San Francisco office (of the Board of Medical Examiners), entered a plea of not guilty and requested a jury trial, which was set for June 22, 1939, in the city of Beverly Hills. He still remains in custody, and the court has refused to lower bail of \$3,000, originally set." (Previous entries, April, 1937; May, 1938; Annual Report, Board of Medical Examiners, 1937.)

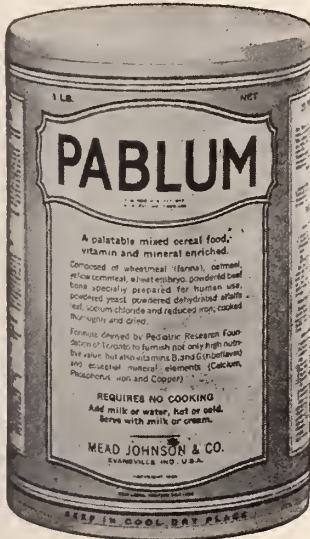
Investigation reports indicate that John Cicero Johnson on May 19, 1939, in Municipal Court, Division 2, San Diego, pleaded guilty to a charge of violation of the Business and Professions Code, relating to the practice of medicine, and was reported sentenced to thirty days in the industrial work camp, sentence being suspended on condition he no longer hold himself out or advertise that he is a doctor or in any way violate other provisions of the Business and Professions Code.

Two individuals, one named Harry W. Chisam, the other named Frank Moulton, were reported by our Los Angeles Investigation Department as arrested on May 8, 1939, on a charge of violation of the Business and Professions Code relating to the practice of medicine. The report indicates that Moulton entered a plea of guilty and asked for probation, and on May 16 was sentenced to serve 180 days in the city jail, which was suspended. He was also sentenced to pay a fine of \$100 at the rate of \$10 per month and was

granted probation for two years on condition of no further violation of the law. Also that on May 16 Chisam entered a plea of guilty and on May 31 was reported sentenced to 180 days in jail, sentence suspended for a period of two years.

Investigation reports relate that an individual using the name Logan Matthew Franey, together with several aliases, who assertedly falsely claims some medical education, was recently interviewed by our Special Agent Hunter at the San Francisco county jail. According to reports, he was serving a sentence in connection with an asserted bad check charge, which sentence terminated on May 21, 1939. The Secretary of the Arkansas Board of Medical Examiners and the Mississippi Board of Medical Examiners reported that an individual using the name of Logan M. Franey, claiming to be a doctor, had early this year written them for an application for reciprocity license; however, he failed to file an application in either state. His claim to be a member of the Sigma Alpha Epsilon fraternity, University of Virginia, was reported false by the officers of said fraternity.

"Robert C. Perry, 69-year-old former Alaska miner convicted of murder in the robbery slaying of Jack Anthony, twenty-six, bank watchman, will be sentenced to San Quentin's lethal gas chamber by Superior Judge Gordon Thompson tomorrow. Perry waived a hearing on his secondary plea of not guilty by reason of insanity. His conviction carries a mandatory death penalty." (Associated Press dispatch dated San Diego, June 9, 1939, and printed in the San Francisco *Call-Bulletin*, same date.) This is the individual featured in the 1931 Annual Report of the Board of Medical Examiners as then using the name of Donald Balfour, M.D., well-known surgeon at the Mayo Clinic, Rochester, Minnesota.



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## CANNED FOODS AS PROTEIN SOURCES

● The primary function of protein in foods is that of a building material essential for tissue growth and maintenance. In 1897, Rubner postulated that all proteins are not of equal value in nutrition (1). Since that time, considerable attention has been directed towards the establishment of the types and amounts of protein required by man.

Chemical and biological investigations have demonstrated that different proteins may vary widely in both chemical composition (2) and ability to satisfy the nitrogen requirements (1, 3) of various animals. Of the twenty-odd amino acids which have been isolated from proteins (4) arginine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine have been shown to be essential in mammalian nutrition. The biological value of a protein is in reality a measure of its ability to supply those amino acids essential for tissue building and repair which the animal cannot synthesize (5) from material "ordinarily available" at a rate sufficient to meet body demands. A "complete" protein is one which will supply—or at least contains—the essential amino acids. Few proteins approach this ideal condition. Fortunately, however, a varied diet, containing proteins of both vegetable and animal origin, will usually supply all the essential amino acids which may not be supplied in adequate amounts by any one of the proteins.

As to the amounts of protein needed by men, experiments of the balance sheet or endogenous nitrogen elimination types (3, 6) have demonstrated that the protein require-

ments of the human adult may apparently be adequately met by relatively low protein intakes. These intakes are of the order of 0.5 gram per day per kilogram of body weight. However, there is evidence (3) that development of physique and general health is favored by more liberal protein intake. Since excess of protein above the requirement for tissue repair and growth is utilized as a source of fuel, the present trend is toward more liberal protein allowances.

In infancy and childhood, suggested protein allowances (3) are relatively high, being of the order of 3 to 4 grams of protein per kilogram of body weight in infancy and gradually decreasing with increasing age until adult allowances (3, 6) of 0.75 to 1.5 grams protein per kilogram of body weight are reached. Protein allowances of the order of 10 to 15 per cent of total calories as protein calories in the mixed diet throughout the entire life cycle, appear to be satisfactory. In the formulating of a mixed diet calculated to supply optimal amounts of proteins, the canned meats, marine, dairy and vegetable products may be freely used.

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(1) 1935. Nutrition Abstracts and Reviews, 4, 447

(2) 1929. The Biochemistry of the Amino Acids, H. H. Mitchell and T. S. Hamilton, Chemical Catalog Company, New York.

(3) 1937. Nutrition Abstracts and Reviews, 7, 257.

(4) 1937. J. Am. Med. Assn. 109, 2070.

(5) 1938. Annual Review Biochemistry, 7, 356.

(6) 1938. Chemistry of Food and Nutrition, Fifth Edition, H. C. Sherman, Macmillan Co., New York.

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- ☐ Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245—"Pharmacology of Inflammation: III. Influence of Hygroscopic Agents on Irritation From Cigarette Smoke."
- ☐ N. Y. State Jour. Med. 1935, 35-No. 11,590—"Irritating Properties of Cigarette Smoke as Influenced by Hygroscopic Agents."
- ☐ Laryngoscope, 1935, XLV, No. 2, 149-154—"Some Clinical Observations on the Influence of Certain Hygroscopic Agents in Cigarettes."
- ☐ Laryngoscope, 1937, XLVII, 58-60—"Further Clinical Observations on the Influence of Hygroscopic Agents in Cigarettes."

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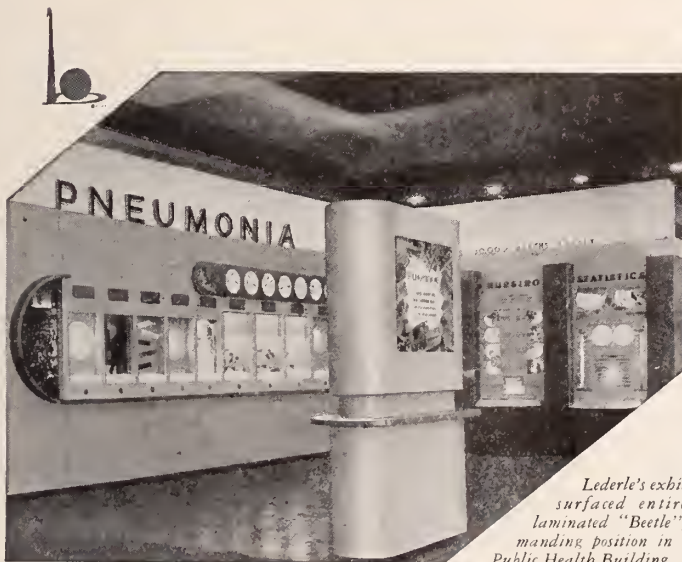
But give serum also:

- if patient's temperature, pulse rate and respiration are not essentially normal within 24-36 hours after beginning the drug treatment;
- or if the case is of 3 days' or more duration;
- or if bacteremia is present;
- or if the patient is over 40;
- or if two or more lobes are involved;
- or if patient is pregnant or in first week of puerperium;
- or if, on account of nausea, patient cannot tolerate Sulfapyridine.

Finally, watch for contraindications for Sulfapyridine; this requires daily blood counts and urine analyses. Sulfapyridine is toxic to some and patients should be constantly supervised to detect a possible occurrence of hemolytic anemia, hematuria, or leukopenia. Nausea, the most constant side-effect, is not a contraindication.

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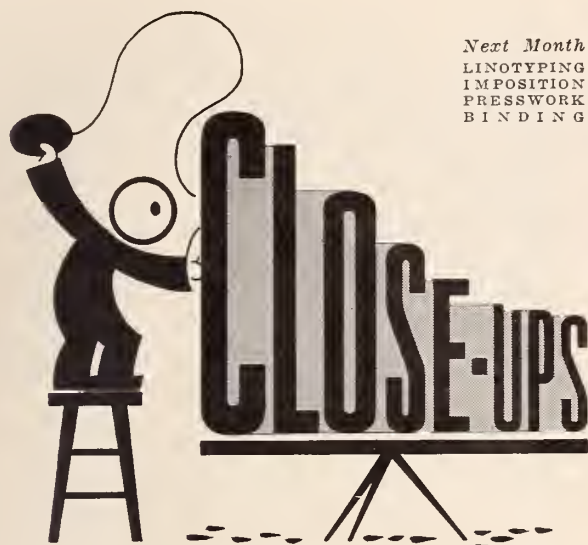
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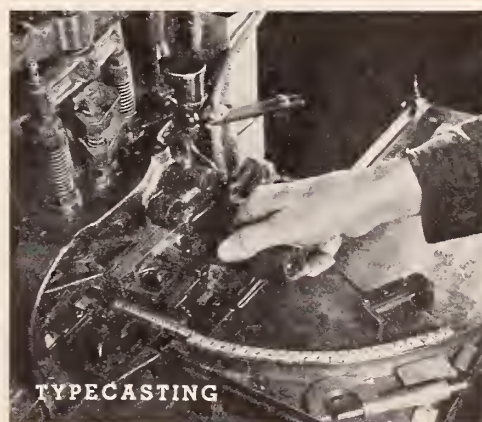
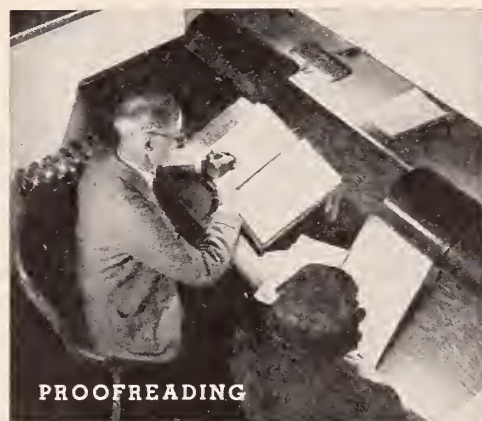
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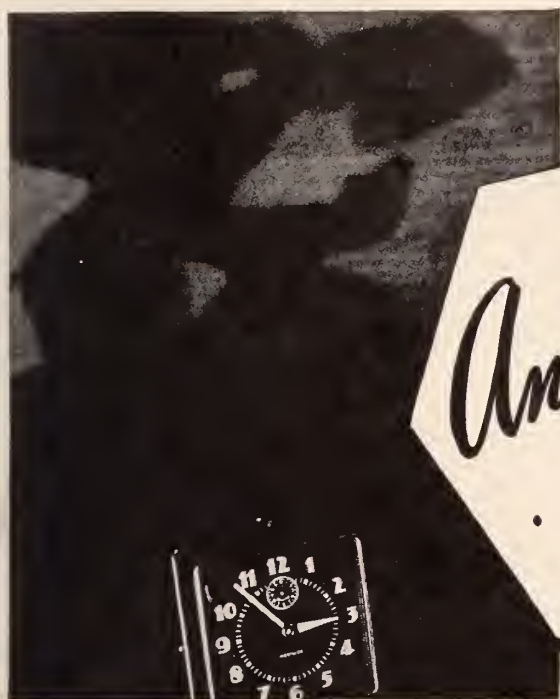
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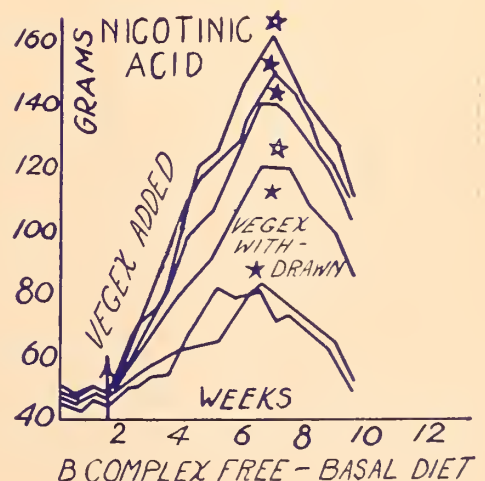
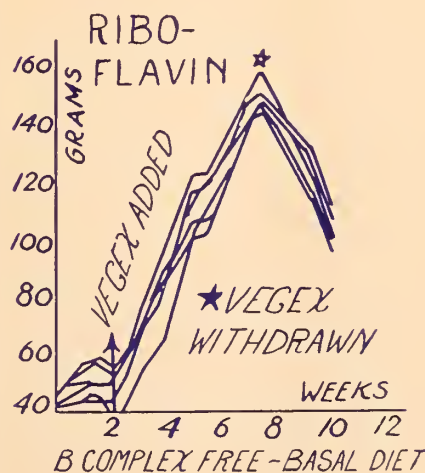
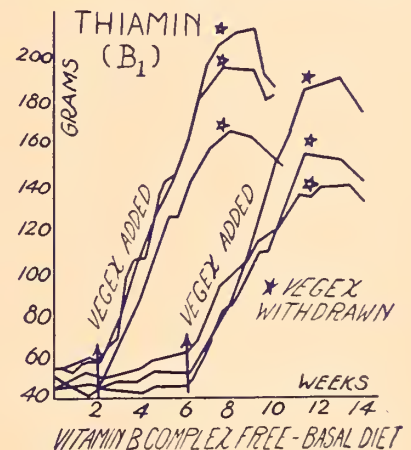
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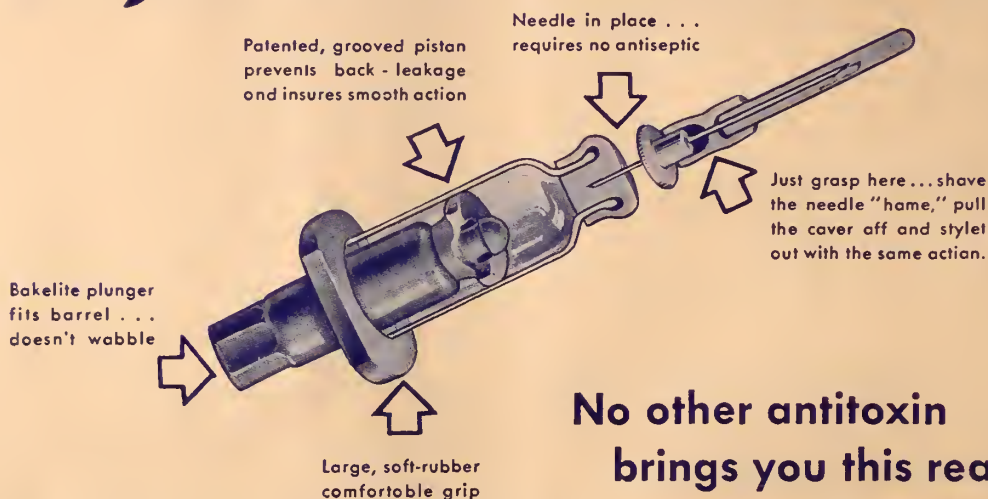
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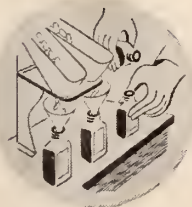


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		Elbridge J. Best (1942), 384 Post Street, San Francisco.	
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Frank R. Makinson (Chairman).....	Oakland 1941	Frederick S. Foote, Secretary of Section on General Surgery, ex officio	
J. Marion Read.....	San Francisco 1942	George H. Kress, Secretary of California Medical Association, (Chairman) ex officio	
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Editor ex officio		The Committee on Public Relations consists of the chairmen of the following standing committees and of certain general officers of the Association, all serving ex officio. The chairman of the committee is George G. Reinle, the secretary is George H. Kress. The director of the Department of Public Relations is George H. Kress. The chairman of the Committee on Public Relations is ex officio a member of the Council.	
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# ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to promptly notify "California and Western Medicine" when changes are indicated in their roster information.)

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2404 Broadway, Oakland  
President, Frank H. Bowles, 426 Seventeenth Street, Oakland.  
Secretary, Gertrude Moore, 2404 Broadway, Oakland.  
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

**Butte County Medical Society**  
President, E. L. Meyers, Fourth Street and Broadway, Chico.  
Secretary, J. O. Chiappella, 131 Broadway, Chico.  
Meeting, *Second Thursday.*

**Contra Costa County Medical Society**  
President, Kahlo Daily, 314 Tenth Street, Richmond.  
Secretary, Clifford E. Dietrich, 1306 Pomona Avenue, Crockett.  
Meeting, *Second Tuesday, 8 p. m.*

**Fresno County Medical Society**  
President, Roland W. Dahlgren, 1006 Mattei Building, Fresno.  
Secretary, Lester R. Nielson, 1006 Mattei Bldg., Fresno.  
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

**Humboldt County Medical Society**  
President, Samuel P. Burre, 507 F Street, Eureka.  
Secretary, Joseph S. Woolford, 350 E Street, Eureka.  
Meeting, *First Thursday.*

**Imperial County Medical Society**  
President, Henry B. Graeser, 115 E. Fifth Street, Holtville.  
Secretary, William A. Clarke, Holtville.  
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

**Inyo-Mono County Medical Society**  
President, Lloyd S. Bainbauer, 705 Home Street, Bishop.  
Secretary, Selda E. Anthony, Winnedumah Hotel, Independence.  
Meeting, *Fourth Wednesday, Methodist Church, Bishop, except December, January, February.*

**Kern County Medical Society**  
President, C. I. Mead, Habersfelde Building, Bakersfield.  
Secretary, C. S. Compton, 428 C Street, Bakersfield.  
Meeting, *Third Thursday, 8:00 p. m.*

**Kings County Medical Society**  
President, P. K. Edmunds, Corcoran.  
Secretary, William A. Johnstone, Hanford.  
Meeting, *Second Monday, 8 p. m., Legion Hall, Hanford.*

**Lassen-Plumas-Modoc County Medical Society**  
President, C. I. Burnett, Susanville.  
Secretary, Fred J. Davis, Jr., Westwood.  
Meeting, *On Call.*

**Los Angeles County Medical Association**  
1925 Wilshire Boulevard, Los Angeles  
President, William H. Daniel, 1930 Wilshire Boulevard, Los Angeles.  
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.  
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

**Marin County Medical Society**  
President, Harry N. Hensler, Home Market Building, San Anselmo.  
Secretary, Carl W. Clark, 510 B Street, San Rafael.  
Meeting, *Fourth Thursday, 7:00 p. m., Marin Golf and Country Club.*

**Mendocino-Lake County Medical Society**  
President, Robert B. Smalley, Willits.  
Secretary, Dallas Wagner, Fort Bragg.  
Meeting, *On Call.*

**Merced County Medical Society**  
President, E. M. Soderstrom, Merced.  
Secretary, Fred O. Lien, Shaffer Building, Merced.  
Meeting, *Third Thursday, Hotel Tioga, Merced.*

**Monterey County Medical Society**  
President, Walter P. Farr, 308 Main Street, Salinas.  
Secretary, Herbert Archibald, Salinas National Bank Building, Salinas.  
Meeting, *First Thursday.*

**Napa County Medical Society**  
President, Alexander H. McLeish, Veterans Home Hospital, Yountville.  
Secretary, M. M. Booth, Bruck Building, St. Helena.  
Meeting, *First Wednesday.*

**Orange County Medical Society**  
President, M. W. Hollingsworth, 1806 No. Main Street, Santa Ana.  
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.  
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital Orange.*

**Placer County Medical Society**  
President, William M. Miller, Auburn.  
Secretary, Robert A. Peers, Colfax.  
Meeting, *At Call of President.*

**Riverside County Medical Society**  
President, N. K. Bear, 3655 Fourteenth Street, Riverside.  
Secretary, Thomas A. Card, 3616 Main Street, Riverside.  
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

**Sacramento Society for Medical Improvement**  
President, Manuel Azevedo, 1027 Tenth Street, Sacramento.  
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.  
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

**San Benito County Medical Society**  
President, J. M. O'Donnell, Hollister.  
Secretary, L. E. Smith, Hollister.  
Meeting, *At Call of President.*

**San Bernardino County Medical Society**  
President, Delbert B. Williams, 1151 D Street, San Bernardino.  
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.  
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

**San Diego County Medical Society**  
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego  
President, Hall G. Holder, 1109 Medico-Dental Building, San Diego.  
Secretary, C. V. Bernardini, Medico-Dental Building, 233 A Street, San Diego.  
Meeting, *Second Tuesday, El Cortez Hotel.*

**San Francisco County Medical Society**  
2180 Washington Street, San Francisco  
President, Edwin L. Bruck, 384 Post Street, San Francisco.  
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.  
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

**San Joaquin County Medical Society**  
President, N. P. Johnson, Medico-Dental Building, Stockton.  
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.  
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

**San Luis Obispo County Medical Society**  
President, J. B. V. Butler, 722 Marsh Street, San Luis Obispo.  
Secretary, E. M. Bingham, County Health Department, San Luis Obispo.  
Meeting, *Third Saturday, 6:30 p. m., Gold Dragon Cafe, San Luis Obispo.*

**San Mateo County Medical Society**  
President, N. D. Morrison, 205 Third Avenue, San Mateo.  
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.  
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

**Santa Barbara County Medical Society**  
President, W. H. Johnston, 1515 State Street, Santa Barbara.  
Secretary, D. H. McNamara, 317 W. Pueblo Street, Santa Barbara.  
Meeting, *Second Monday, Cottage Hospital.*

**Santa Clara County Medical Society**  
President, Cletus S. Sullivan, Bank of America Building, San Jose.  
Secretary, Leslie B. Magoon, 652 East Santa Clara Street, San Jose.  
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

**Santa Cruz County Medical Society**  
President, John T. Harrington, 10 Cooper Street, Santa Cruz.  
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.  
Meeting, *First Monday, 7:30 p. m., Club Rio del Mar, Aptos.*

**Shasta County Medical Society**  
President, B. F. Saylor, Redding.  
Secretary, Morton J. Murphy, 1542 Market Street, Redding.  
Meeting, *Second Monday.*

**Siskiyou County Medical Society**  
President, J. B. McGuire, Mt. Shasta.  
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.  
Meeting, *Sunday on call.*

**Solano County Medical Society**  
President, Ream S. Leachman, 727 Sonoma Street, Vallejo.  
Secretary, John W. Green, Box 539, Vallejo.  
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

**Sonoma County Medical Society**  
President, D. C. Oakleaf, 301A West Street, Healdsburg.  
Secretary, T. E. Albers, 600 B Street, Santa Rosa.  
Meeting, *Second Thursday.*

**Stanislaus County Medical Society**  
President, John A. Cooper, 1024 J Street, Modesto.  
Secretary, Hoyt R. Gant, 403 Beaty Building, Modesto.  
Meeting, *Second Friday, 7:30 p. m., Hotel Hughson.*

**Tehama County Medical Society**  
President, O. T. Wood, Red Bluff.  
Secretary, R. G. Frey, Red Bluff.  
Meeting, *At Call of President.*

**Tulare County Medical Society**  
President, Newton Miller, 231 No. Main Street, Porterville.  
Secretary, Ray Cronemiller, Exeter.  
Meeting, *Sunday Evening once a month.*

**Ventura County Medical Society**  
President, W. F. Mosher, 34 No. Ash Street, Ventura.  
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.  
Meeting, *Second Tuesday, Ventura County Country Club.*

**Yolo-Colusa-Glenn County Medical Society**  
President, H. G. Potter, Winters.  
Secretary, W. J. Blevins, Jr., Woodland.  
Meeting, *First Tuesday.*

**Yuba-Sutter County Medical Society**  
President, P. E. Thunen, I. O. O. F. Building, Marysville.  
Secretary, Leon M. Swift, I. O. O. F. Building, Marysville.  
Meeting, *First Tuesday.*

(Roster lists continued on advertising page 6)



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**Headache Remedies Attack Symptom but Ignore Cause.**—Headache is merely a symptom, and its suppression by drugs may cause the true source of trouble to be ignored, Milton MacKaye says in *Hygeia, The Health Magazine*.

Most of us, he points out, make the mistake of trying to treat the headache itself instead of the condition that produces it.

"The cause of a headache may be anywhere but in the head," Mr. MacKaye declares. "Many of the vital organs of the body are not sensitive to impulses which ordinarily cause pain. These organs, however, have a way of letting their disturbances be known; their message of complaint is relayed to the very center of the nervous system—the head, which thus becomes the great sounding box for reflex pain.

"An occasional headache may be unimportant, but chronic headache is as certain a danger signal as a red traffic light. The numerous causes (some medical textbooks list 203) and the variation of the symptom itself make the subject too complex and dangerous for amateur diagnosis."

While some of the drugs used to kill the pain of headache are harmless in themselves, others are dangerous. "Acetanilid depresses the heart and is a poison if taken in sufficient quantities," the author warns. "The barbitals should be used only under medical supervision. Pyramidon is effective in combating pain, but under certain conditions of excessive use it has been known to produce a disease of the blood and bone marrow. It is a safe rule to question any trademarked headache remedy."

For the occasional headache of low intensity, Mr. MacKaye offers the following suggestions in place of the drugs so often used:

"For that end-of-the-day dull throb, which may be caused by a combination of fatigue, hunger and overstress,

take a small quantity of light food, loosen your clothing, then lie down in a darkened room for half an hour. A cold compress over the eyes and forehead is often effective. If you have been penned in your office, home or shop all day, you are probably suffering from the ill effects of poor ventilation.

"A brisk walk, a minor change of scene, an invigorating shower—any of these may speed up your circulation sufficiently to relieve the headache."

Mr. MacKaye divides headaches into three classifications—mechanical, toxic and functional—although he explains that this grouping is purely arbitrary.

The mechanical type, produced by diseases of, or damage to, the head itself, includes headaches due to astigmatism or eyestrain and those which accompany a cold.

Toxic headaches are produced by poisons from outside the body—alcohol, gases, drugs, tobacco—or by poisons manufactured within the body itself.

The third group is the functional headache, to which no organic cause can be assigned.

The "psychogenic headache," which seems to be produced by excessive emotion, is a type of functional headache which bewilders even the experts. "The most careful clinical examination usually discloses no discernible physiologic abnormality," the author says. "This type of pain seems to be associated with repressed and unworthy impulses; when rejected emotions stir in the unconscious mind, the headache appears. The treatment? Active occupation of some kind—a hobby, a captivating interest, or, best of all, an acceptable outlet for the repressed impulses."

Health is the first good lent to men;  
A gentle disposition then;  
Next, to be rich by no by-ways;  
Lastly, with friends t' enjoy our days.  
—Herrick.



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**Cancer May Lurk Behind All Body Abnormalities.**—Any lump, bleeding or other alteration or abnormality in the functioning of the human body should be examined immediately to determine whether or not the cause is cancer, Richard L. Sutton, Jr., M.D., Kansas City, Mo., urges in *Hygeia, The Health Magazine*.

Because of false modesty, hesitation or neglect, many cancers that otherwise could be cured are not diagnosed until it is too late, the author points out. "Where early cancer can be seen, felt or discerned, cure probably can be effected," he states.

Explaining the nature of cancer, Doctor Sutton says that essentially it is an abnormal growth of cells which in the early stages forms a painless lump. "On a surface of the body, skin, mouth, air passages or elsewhere, the beginning lump is flat or warty and tends to scale," he says. "Inside tissues, as in the breast, the muscles or subcutaneous tissue, the lump tends to be round. It does not hurt until it sloughs, becomes infected or presses on a nerve. In its earliest sloughing or scaling off, it may bleed, thus bleeding of unknown cause is suspicious of cancer.

"A small lump may give evidence of its existence by interfering with function. Cancer in the brain or beside the spinal cord does this, as does cancer in the stomach, bowel or ureter.

"Cancer can develop anywhere. On the skin, early cancer can always be seen, and there is no excuse for any person's ever dying of cancer of the skin. A lump in the breast is readily found, and every woman should keep herself aware of whether a lump is there. Diagnosis of lumps in the breast commonly necessitates removal of a piece for microscopic examination. If a woman shies at this simple procedure, she is showing her preference for having her skeleton and liver fill up with cancer, instead of getting rid of the whole thing when this is easily possible.

"In those locations where cancer cannot be found early, the difficulties are almost insurmountable. In the stomach, a common site of cancer in men, the start is so insidious and the lump gives so little hint of its existence that many cases cannot be cured by the time they can be recognized.

"In the lung it is possible in some cases to discern the existence of cancer in its early stages and to do something about it. Bone cancers are rather difficult. They may start inside the bone in the marrow and give no evidence of their existence until it is too late.

"Cancers involving the blood cells are simply hopeless from the start, because they scatter so early."

Cure of cancer consists of eradicating, by whatever means, all the cancer cells, and this is possible only when the growth has not spread too far.

"Patients commonly cannot be brought to see that any sacrifice of the moment is worth making," Doctor Sutton says. "They see immediate unpleasantness, and can't be made to look beyond that. If they could, they would see so

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much worse unpleasantness that they would beg for the chance to rid themselves of a diseased chunk of their anatomy."

**Care Urged in Use of Butyn.**—Persons on whom solutions and ointments containing the drug butyn are to be used, should be first tested for idiosyncrasy and hypersensitivity to it, Howard J. Parkhurst, M. D., and John A. Lukens, M. D., Toledo, Ohio, advise in *The Journal of the American Medical Association*.

The drug is a surface anesthetic, used as a substitute for cocaine, for the nose and throat. The authors base their advice on their experience with a woman patient who suffered a severe inflammation of the skin and eyes from the drug, as well as on a review of three other cases previously reported by other physicians.



## HOSPITALS AND SANATORIUMS

The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

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**Roundworm Infestation More Serious Than Is Generally Believed.**—The problem of roundworm infestation deserves far more serious consideration than it has received heretofore, Virgil E. Simpson, M.D., Louisville, Ky., indicates in *The Journal of the American Medical Association*.

He contends that such infestation is more frequent than is generally believed and that it appears to be world-wide in distribution. Furthermore, despite the belief of some physicians that the parasite usually produces little harm, it has been known to cause death.

"The parasite has a bizarre career in the human body," Doctor Simpson says. "It makes its domicile with equal adaptability in almost any of the abdominal organs, in the blood vessels, lungs and windpipe. When the parasite has entered through the skin a reactionary redness of the skin begins within twenty-four hours at the site of entrance. This increases in degree for another twenty-four or forty-eight hours and is made more annoying by itching.

"Varying degrees of irritation, even inflammation, in lung tissues appear; a low grade infestation may cause no evident phenomena. In the digestive tract, whether reached by the skin-lung route or by direct conveyance to the stomach and intestine, the clinical picture varies from no disturbance or a negligible one to severe, even fatal diarrhea."

However, the diagnosis of roundworm must be made through laboratory identification. Merely observing its effect on the patient may lead to the confusion of the symptoms caused by this parasite with those caused by hookworm. "In roundworm infestation," the author explains, "the first portion of the small intestine (duodenum) harbors the majority of the parasites. Therefore a sure way to diagnose the condition is to study the duodenal fluid.

"Riddance of infestation is not assured unless a thorough, systematic cleaning-up program is instituted. The carpets and rugs must be either dry cleaned or exposed to the sun's rays for several days. Wearing apparel not damaged by heat should be boiled; other garments should be dry cleaned.

Floors should be scrubbed with soap and hot water. The floors of cellars and out-buildings, if earthen, should be covered with lime; if wood, they should be scrubbed with soap and water. Household pets should be killed or treated.

"Examination of every member of the family should be searchingly done. It does not seem reasonable to conclude that the family will escape after one member becomes infested.

"Iodine has been found the most satisfactory agent for the removal of the worms from the system."

**Causes of Coronary Thrombosis.**—Although overexertion and intense emotional stress appear to have no bearing on the coronary thrombosis attack itself, they are directly concerned in the primary causes of the condition leading up to the attack, Dr. J. C. Paterson, Regina, Sask., Canada, states in *The Journal of the American Medical Association*.

A coronary thrombus is a blood clot in an artery which shuts off the supply of blood to the heart. From autopsy studies Doctor Paterson finds that the clot forms gradually, possibly taking several days before it completely obstructs the artery. Pointing out that it has been the common belief that overexertion or intense emotional stress has a direct bearing on the fatal attack of coronary thrombosis, the doctor says his findings indicated such activities are merely coincidental.

Sudden and temporary increases in the blood pressure are commonly encountered in circumstances of unusual exertion and emotion. The autopsy appearance of the clots in coronary thrombosis in a series of fatal cases studied by the author strongly suggested to him that excessive exercise and emotional stress, with the accompanying rise in blood pressure, are intimately concerned in the production of coronary artery thrombosis but apparently have little relationship to the fatal attack, which may take place several days later.



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**Subjecting the Ears to Ridiculous Treatment May Impair Hearing.**—The same persons who guard their eyes zealously often subject their ears to ridiculous treatment which may lead to serious impairment of hearing, Irving W. Voorhees, M. D., New York, points out in *Hygiea, The Health Magazine*.

He cites the case of a woman who, on the advice of a "friend," dropped hot melted tallow from a candle into her right ear to stop its aching. When the pain became so severe that she finally consulted a physician, the original ache was found to be due to a decayed wisdom tooth from which the pain had been referred to the ear.

"Removal of the tooth was simple enough; but removal of the tallow from the ear was a feat of force," says Doctor Voorhees. "The woman's eardrum was practically destroyed. A discharge from the ear followed, and it took many weeks of treatment to stop the pus. Healing resulted, but with a large perforation in the drum and marked loss of hearing."

While an estimated three million school children and fourteen million adults in this country are totally or partially deaf, the author maintains, most of the rest of us often do not hear what is said to us because of "inatten-

tion deafness." We make nuisances of ourselves by asking our friends to repeat things that we have really heard but simply not heeded.

"We live in a sea of sounds which have no needful meaning for us," Doctor Voorhees declares. "The noises of a great city dinning into our ears the livelong day have destroyed or diminished much of the original acuteness which was once our birthright. This is the first and most important cause of inattention deafness."

The handicap of true impairment of hearing is often underestimated. "Deafened children suffer both directly and indirectly from their disability," says Doctor Voorhees. "Many of them are hurt in the streets. They are avoided by playmates or are made the butt of ridicule, are thrashed or scolded by parents and regarded by teachers as just plain stupid. They become antisocial and may develop criminal tendencies.

"The important thing is to see that proper treatment is instituted at once. Relief of deafness may be accomplished by so simple a measure as removal of wax. Very often, though, it is not so simple.

"If there are obstructions in the nose, throat or nasopharynx, the space at the 'roof of the throat,' these require not only surgical removal, but postoperative treatment to make sure that the eustachian tube leading from the pharynx to the ears is open and that it remains open.

"Serious and troublesome elements in deafness are head noises. They are entirely subjective and are incurable. These subjective sounds are particularly distressing and may craze the patient to the point of self destruction. Even total deafness is a boon compared to the surging tide of violent and uncontrollable head noises, which go on ceaselessly in spite of all efforts to stop them."

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## BOOKS RECEIVED

**Factual Data on Medical Economics.** By the Bureau of Medical Economics, American Medical Association. Paper. Pp. 67. Chicago: American Medical Association, 1939.

**Organized Payments for Medical Services.** By the Bureau of Medical Economics, American Medical Association. Paper. Pp. 185. Chicago: American Medical Association, 1939.

**A Textbook of Bacteriology.** The Application of Bacteriology and Immunology to the Etiology, Diagnosis, Specific Therapy and Prevention of Infectious Diseases for Students and Practitioners of Medicine and Public Health. By Hans Zinsser, M. D., Consulting Bacteriologist to the Peter Bent Brigham Hospital and the Children's Hospital, Boston, and Stanhope Bayne-Jones, M. D., Professor of Bacteriology, and Dean, Yale University Medical School, Master of Trumbull College, Yale University, New Haven, Connecticut. Eighth Edition, Revised and Reset. Cloth. Pp. 990. Price, \$8.00. New York: D. Appleton-Century Company, Incorporated, 1939.

**Public Health Law.** By James A. Tobey, Dr. P.H., LL.D., Member of the New York Bar; Fellow, American Public Health Association; Associate Fellow, American Medical Association; Lecturer on Public Health Law at Harvard University School of Public Health Law at Harvard University School of Public Health and at Massachusetts Institute of Technology. Second Edition. Cloth. Pp. 414. Price, \$3.50. New York: The Commonwealth Fund, 1939.

**Treatment by Diet.** By Clifford J. Barborka, B.S., M.S., M.D., D.Sc., F.A.C.P., Department of Medicine, Northwestern University Medical School, Chicago; Formerly Consulting Physician, The Mayo Clinic. Fourth Edition, Revised. Cloth. Pp. 691, illustrated. Price, \$5.00. Philadelphia: J. B. Lippincott Company, 1939.

**Medical State Board Examinations.** Topical Summaries and Answers. An Organized Review of Actual Questions Given in Medical Licensing Examinations Throughout the United States. By Harold Rypins, A. B., M. D., F. A. C. P., Secretary, New York State Board of Medical Examiners; Member, National Board of Medical Examiners, Commission on Graduate Medical Education, Advisory Board for Medical Specialties, Advisory Council on Medical Education; Assistant Professor of Medicine, Albany Medical College; Former President, Federation of State Boards of Medical Examiners of the United States. Fourth Edition, Revised. Cloth. Pp. 448. Price, \$4.50. Philadelphia: J. B. Lippincott Company, 1939.

**Otolaryngology in General Practice.** By Lyman G. Richards, M. D., Fellow in Otolaryngology, Courses for Graduates, and Assistant in Surgery, Harvard Medical School; Associate Professor of Otolaryngology, Tufts Medical School; Research Associate in Otolaryngology, Children's Hospital; Otolaryngological Surgeon, Peter Bent Brigham Hospital, Boston, Massachusetts. With a Foreword by D. Harold Walker, M. D., Professor Emeritus of Otolaryngology at Harvard Medical School; Past President of American Otolaryngological Society; Former Chief and Present Consultant in Otolaryngology, Massachusetts Eye and Ear Infirmary, Boston, Massachusetts. Cloth. Pp. 352, illustrated. Price, \$6.00. New York: The Macmillan Company, 1939.

**Varicose Veins.** By Alton Ochsner, B. A., M. D., D. Sc., (Hon.), F. A. C. S., William Henderson Professor of Surgery and Director of the Department of Surgery, School of Medicine, Tulane University of Louisiana, New Orleans, Louisiana.

(Continued on Next Page)



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## BOOKS RECEIVED

(Continued from Preceding Page)

ana, and Howard Mahorner, B. A., M. D., M. S. (Surgery), F. A. C. S., Assistant Professor of Surgery, School of Medicine, Tulane University of Louisiana, New Orleans, Louisiana. Cloth. Pp. 147, with Fifty Text Illustrations and Two Color Plates. Price, \$3.00. St. Louis: The C. V. Mosby Company, 1939.

**An Introduction to Sociology and Social Problems.** A Textbook for Nurses. By Deborah MacLurg Jensen, R. N., B. Sc., Social Service Consultant to the Visiting Nurse Association, St. Louis; Lecturer in Nursing Education, Washington University; Formerly Assistant Director, School of Nursing, Washington University, St. Louis. Cloth. Pp. 341. Price, \$2.75. St. Louis: The C. V. Mosby Company, 1939.

**A Textbook of Obstetrics.** With Special Reference to Nursing Care. By Charles B. Reed, M. D., F. A. C. S., Associate Professor of Obstetrics, Northwestern University Medical School; Head of Obstetrical Department, Wesley Memorial Hospital, Chicago, and Bess I. Cooley, R. N., Supervisor and Instructor, Department of Obstetrics, Wesley Memorial Hospital, Chicago. Cloth. Pp. 476, with 209 illustrations. Price, \$3.00. St. Louis: The C. V. Mosby Company, 1939.

**Transactions of the Third International Goiter Conference and the American Association for the Study of Goiter.** 1938 Joint Meeting, Washington, D. C. Cloth. Pp. 547. Price, \$6.00. Portland, Oregon: J. C. Hamilton Goiter Publications, 1939.

**Manual of the Diseases of the Eye.** For Students and General Practitioners. By Charles H. May, M. D.; Consulting Ophthalmologist to Bellevue, Mt. Sinai and French Hospitals, New York; Formerly Chief of Clinic and Instructor in Ophthalmology, Medical Department of Columbia University, and Director of the Eye Service at Bellevue Hospital, New York. Sixteenth Edition, Revised with the Assistance of Charles A. Perera, M. D., Instructor in

Ophthalmology, College of Physicians and Surgeons, Medical Department of Columbia University, New York. Cloth. Pp. 515, with 387 illustrations including 31 plates, with 95 colored figures. Price, \$4.00. Baltimore: William Wood and Company, 1939.

**Population, Race and Eugenics.** By Morris Siegel, M. D. Cloth. Pp. 206. Price, \$3.00. Hamilton, Ontario: Published by the Author, 546 Barton Street East, 1939.

**Provoked Alimentary Hyperglycemia. The Effect of the Macallum-Laughton Duodenal Extract Upon Hypophyseal Diabetes.** By Joseph Marshall Flint, From the Medical Clinic of the University of Lausanne, Prof. Dr. L. Michaud, Director. Paper. Pp. 133. London, Ontario, Canada: A. B. Macallum, 1939.

**The Canned Food Reference Manual.** Cloth. Pp. 242. New York: American Can Company, 1939.

## BOOK REVIEW

**Organized Payments for Medical Services.** By the Bureau of Medical Economics, American Medical Association. Paper. Pp. 185. Chicago: American Medical Association, 1939.

It would stretch the imagination of a social planner to devise any scheme for the organized payment for medical services that is not described in this publication of the Bureau of Medical Economics of the American Medical Association on "Organized Payments for Medical Services." Several hundred plans for medical care of the indigent involving governmental support and medical society management are explained. Social Security legislation has brought about changes in medical arrangements reaching into almost every locality in the United States and affecting health departments, medical societies, and state and local governments. Types of plans proposed by the Farm Security Administration to provide medical services to Administration clients in 127 counties and covering 100,000 low income families are described. Medical societies have organized postpayment and prepayment plans of medical

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Industries, unions, fraternal organizations, and all sorts of mutual societies provide medical benefits for their members by a variety of prepayment devices. Some 3,000,000 persons are covered by group hospitalization plans, which show a wide variety of relations with state and county medical societies. Commercial insurance companies, all of whom pay benefits in cash, are also entering this field on a large scale. It is estimated that approximately \$300,000,000 in cash is paid out annually by insurance companies to assist in paying medical bills.

The House of Delegates of the American Medical Association has endorsed cash indemnity prepayment plans, but has not sought to prohibit any of its component societies from coöperating with or organizing other types of prepayment for medical service provided their character is not such as to render it impossible to give good medical service.

The number and variety of the plans for medical services—operating and proposed, postpayment and prepayment, service and cash, medical society and other organization sponsored—give proof of the efforts that are being made to supplement the private practice of medicine and indicate a desire to discover, by social experimentation, a solution of local medical problems.

## TWENTY-FIVE YEARS AGO

(Continued from Text Page 144)

torium at the disposal of the Association for the third week in June, and here can be housed the registration booths, the scientific and commercial exhibits and all the various sections, concentrated under one roof. . . .

*Board of Medical Examiners.*—The State Board of Medical Examiners has officially disapproved of the Los Angeles College of Osteopathy and the Pacific College of Osteopathy, Los Angeles (the only two osteopathic colleges in California), so that none of their graduates are permitted to take the examination for the unlimited or "physician and surgeon" licenses, which they demanded. Graduates of osteopathic schools may not take the "physician and surgeon" examinations. They may, however, apply for the "drugless practitioner" examinations provided by the Medical Practice Act. The Pacific Medical College of Los Angeles was denied any sort of recognition. It is understood that these institutions are now suing the board to compel recognition.

It is well recognized that the most important test is that which includes a very careful investigation into the sort of training, medical and premedical, that the applicant has had. That part of the law which makes it necessary for a college to be "approved by the board" very effectually eliminates the diploma mill evil.

*From an Original Article on "Address of the President of the California Association for the Study and Prevention of Tuberculosis," by Robert A. Peers, M. D., Colfax.*—Gentlemen of the Medical Society of the State of California:

On behalf of our society, The California Association for the Study and Prevention of Tuberculosis, I wish to thank you for your liberality in granting us one-third of the time allotted for your state meeting for a scientific program upon the subject of tuberculosis; and also, on behalf of our Association, I extend to you a hearty invitation to partake in the discussion of the papers to be presented to you today. . . .

*From an Original Article on "The Earliest Manifestations of Tuberculosis and Treatment," by George E. Ebright, M. D., San Francisco.*—The diagnosis of early pulmonary tuberculosis in this discussion may be defined as the recognition of a focus of incipient tubercular inflammation, and also the recognition of the first advances of a recrudescence of an arrested or latent lesion. It is axiomatic in tuberculosis that the greater the number of early diagnoses, the greater will be the number of recoveries; conversely, it may or may not be an hyperbole to state that the presence of advanced tuberculosis presupposes failure of early diagnosis, allowing, of course, for the virulence of the infection and the fighting qualities of the patient's organism. . . .

*From an Original Article on "Why Are Better Results Not Being Obtained in the Prevention and Treatment of Tuberculosis?" by Francis M. Pottenger, M. D., Monrovia.* Tuberculosis is a preventable and curable disease. Considerable progress has been made toward both its prevention and its cure during the past quarter of a century, in spite of many obstacles. The fact that we now know more of the nature of the disease and the method of its spreading will enable us to institute other measures which will materially reduce the morbidity. In spite of the fact that the opinion of the profession is very much divided as to the value of different remedies in the treatment of the disease, we are still able by proper utilization of the methods at hand to produce an arrestment or healing in a very large percentage of cases, provided the diagnosis is made early and proper treatment is instituted at once. . . .

*From an Original Article on "Some Laboratory Aids in the Diagnosis of Tuberculosis," by George H. Evans, M. D., San Francisco.*—Notwithstanding the rapid development of knowledge concerning the recognition of early

(Continued on Next Page)





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### TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

tuberculosis during the last few years, there has not been a sufficiently large relative decrease in its mortality to justify the assumption that the profession generally and the tuberculous public are practically applying this knowledge to a sufficient degree. The principal reasons for this are, first, the mental attitude of the patient, and second, the failure of the average practitioner to properly appreciate the importance or the possibility of recognizing the disease until physical signs and symptoms reveal gross pathologic lesions of advanced disease. . . .

From an Original Article on "The Prognosis of Pulmonary Tuberculosis," by W. R. P. Clark, M. D., San Francisco.—To prognosticate the duration, course, and termination of any disease is necessarily a hazardous undertaking, and pulmonary tuberculosis is no exception to the rule. There are many conditions, however, to guide us in reaching our conclusions. While it is well to look upon all patients in a favorable light, when we come face to face with grim facts day after day it sometimes robs us of our optimism. From the prognostic point of view it might be well to dwell for a moment on the class of individuals this disease selects as its victims. They are usually the unfortunates whose vitality has been lowered by inherited tendencies, by indiscretions on their own part or by the misfortune of not being able to get proper food and hygienic surroundings, and the outcome depends to a large extent upon what we may be able to do to remedy the deficiency in each particular case. Unfortunately, in dispensary work, and with a great many cases in private practice, the provision of proper means for care is not at present at hand. . . .

(Continued on Page 18)

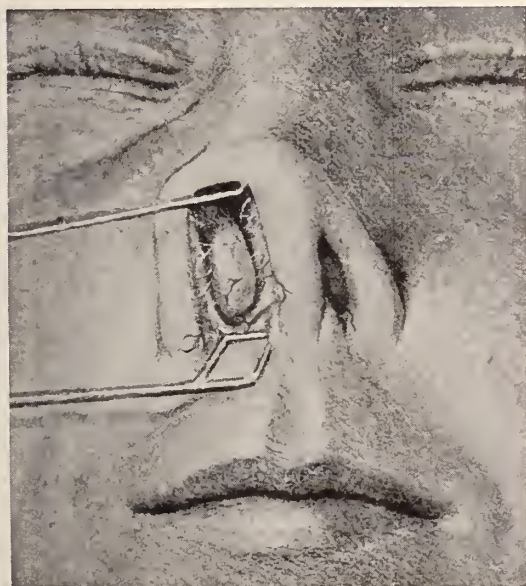
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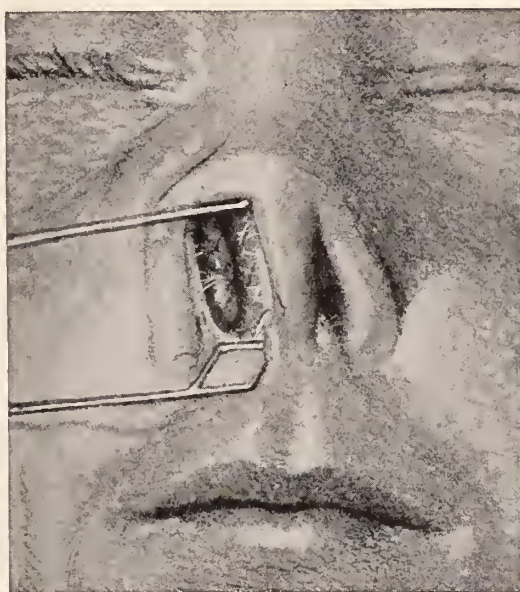
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### TWENTY-FIVE YEARS AGO

(Continued from Page 16)

*From an Original Article on "The Bureau of Tuberculosis, Its Work and Plans," by Burt F. Howard, M. D., Sacramento.*—The object of the Bureau of Tuberculosis planned by the Tuberculosis Commission of 1911, as submitted by its chairman, Dr. George H. Kress, is familiar to most of you. It was the intention of the commission that this bureau should supervise all work within the state bearing upon the preventive, curative and other aspects of tuberculosis. That it should advise or direct all local bodies in making provision for the treatment of tuberculosis in sanatoria, hospitals, dispensaries, farm colonies, and other institutions, both public and private; that it should advise with the officers of penal and charitable institutions regarding the care of tuberculous inmates and should make all

necessary rules and regulations for the effective carrying out of the work of the bureau.

The law, which was passed by the last legislature, as the result of the recommendations of this commission, did not assign any such general duties as planned by the Tuberculosis Commission, but specified three groups of duties: (1) "the complete and proper registration of all tuberculous persons within the State"; (2) the inspection of institutions treating tuberculosis, both public and private; and (3) those assigned by the Board of Health (including the duties of assistant secretary). The latter group was apparently intended to provide for the more aggressive and constructive work outlined by the commission. . . .

The legislature appropriated \$5,000 for a commission to "investigate the problem of tuberculosis in California, and to recommend an effective and comprehensive plan for the control and gradual eradication of the disease." It would certainly be logical that it should adopt the plan proposed by that commission so far as possible, unless, in the course of time, evidence should arise to show that the plan is not a good one. The first step was the establishment of the State Bureau of Tuberculosis, which cannot fully accomplish the purpose which was intended by the commission without the other units of the plan. Of these the first in importance was the dispensary; the second, the county tuberculosis hospital with state subsidy; and the next, district sanatoria and state farm colonies for early and convalescent patients. It is for you, gentlemen, to establish the present status of the plan proposed and to unite in the support of whatever plan may be agreed upon.

*From an Original Article on "The Treatment of Pulmonary Hemorrhage," by R. S. Cummins, M. D., Los Angeles.* My excuse for presenting a paper to this Society upon this subject is the great variation and lack of logic of the medicinal treatment as given by the various authors.

In considering the treatment of a hemorrhage there are three essential things from the conditions of which must evolve the theories regarding the treatment. The first is the condition of the ruptured vessel; the second, the condition

(Continued on Page 20)


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## TWENTY-FIVE YEARS AGO

(Continued from Page 18)

of the elements of the blood which make up the clot, and the third is the pressure under which the blood is flowing in the vessel. . . .

From an Original Article on "Arequipa Sanatorium, a Sociological and Economic Experiment in the Care of Tuberculous Wage-Earning Girls," by Philip King Brown, M. D., San Francisco.—Arequipa Sanatorium makes no claim to any distinguishing characteristics save in its efforts to meet a social and economic problem made very plain by the three years' work of the tuberculosis class of the San Francisco Polyclinic—the need for a place where young working women could go with their early tuberculosis, and be cared for at a rate within their means, with no element of charity and with the added opportunity of earning part or all the cost by some form of work which they could do safely on a commercially successful basis. . . .

From an Original Article on "Social Insurance in Its Relation to Tuberculosis," by J. N. Force, M. D., Berkeley. Tuberculosis is the "great equalizer." With the exception of those individuals whose income is derived from an invested principal, every case of advanced tuberculosis must eventually accept charity. The charity may be either public, as the clinic or county hospital, or private, measured in terms of the transferred work and wages of some relative. The average physician dislikes to assume charge of a case of tuberculosis. That is why so many people are sent out to Arizona. There is no advancement, financial or otherwise, to be obtained from watching over the last days of a middle-class consumptive. There is only an opportunity to con-

tribute to the before-mentioned private charity, by not sending a bill afterwards. . . .

From an Original Article on "Induced Pneumothorax," by Edward von Adelung, M. D., Oakland.—Pneumothorax is now a recognized method of treating pulmonary tuberculosis. First suggested by Carson, an English physiologist, it was first actually practiced by two men independently: Forlanini, in 1892, and Murphy, in 1898. It depends for its rational explanation on a fact long recognized in relation to surgical tuberculosis—rest for the affected organ. Indeed, many attempts had been made to secure rest for the lung by means of bandages, plaster casts, adhesive strapping, and other devices, before the far better method was developed, that of introducing gas into the pleural space to secure collapse of the affected lung, thus obtaining physiological rest of the organ. . . .

From an Original Article on "Diagnosis, Significance and Treatment of Bronchial Glands in Infancy and Childhood," by William Palmer Lucas, M. D., San Francisco.—The problem of early tuberculous infection is becoming more important as we realize that the primary infections remain dormant for long periods of time, rather than short. Our conception of these primary infections has changed radically during the past few years. Among students of tuberculosis there are now recognized three fairly definite stages or periods through which the average tuberculous case proceeds. This is somewhat analogous to the three stages of syphilis: (1) The primary infection in tuberculosis as in syphilis is an infection of the regionary lymph glands which as a secondary process (2) spreads to neighboring structures by direct connection as the peribronchial

(Continued on Page 22)



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### TWENTY-FIVE YEARS AGO

(Continued from Page 20)

tissue from the bronchial glands, and (3) what is now spoken of generally as tuberculosis is really the tertiary form of tuberculosis, and occurs often years after the primary infection, spreading diffusely not only to neighboring structures, but often to far removed organs, and has a tendency, which the other two forms do not have, of producing cavities. . . .

*From an Original Article on "Indication for the Labyrinth Operation, with Report of Eight Cases That Were Not Operated Upon," by Cullen F. Welty, M. D., San Francisco.*—In this series of operated cases, my indications for operative procedure were based upon the Vienna school of otology, headed by Docent Neumann, Alexander, Frey, Barrany and Ruttin.

At this time, under certain conditions, a labyrinth operation was recommended when the acoustic or static apparatus was intact; many operations were done in such cases and usually with good results. About two years ago the attitude seemed to change in regard to the operative indications, and at present the entire labyrinth must be destroyed before the operation is indicated. . . .

*From an Original Article on "The Intraspinal Treatment of Tabes. Preliminary Report," by S. J. Gardner, M. D., W. B. Coffey, M. D., and W. T. Cummins, M. D., San Francisco.*—The intraspinal administration of auto-salvarsanized serum has been carried out on three tabetic cases at the Southern Pacific Hospital with the period of study extending over six months. In general, the technique was that described by Swift and Ellis. Salvarsan 0.6 gram

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was intravenously given and one hour afterward 40-50 cubic centimeters of blood were withdrawn. Left in the ice chest over night, the serum was pipetted off, centrifugalized and the requisite amount of physiological salt solution added for the desired percentage. This was heated at 56° Centigrade for one-half hour and inoculated within a period of twenty-four hours after the withdrawal of the blood. A funnel with short rubber tubing and interposed glass tubing was employed in the lumbar injection. Patients were kept in bed until the following day. The temperature, pulse and respiration were noted at two-hour intervals for forty-eight hours after the intravenous administration. . . .

*From an Original Article on "Uterine Replacement, with Particular Attention to the Buteau Suspension," by Charles A. Dukes,\* M. D., Oakland.*—I have no apology to make in presenting to you the subject of uterine replacement, knowing that I am to present for your consideration a method that is new in its application, and has proved efficient in a large number of cases. I also wish to make clear that I do not intend the discussion of uterine fixation. In a clinical period covering several years in the Samuel Merritt Hospital, I have used the various methods of uterine replacement that are in vogue, and feel that I may make a fair comparison of the more common ones. . . .

*From "A Crusade Against Medical Licensure."*—The attention of members of the State Society is urgently called to an initiative petition which recently circulated through

\* Editor's Note.—Dr. Charles A. Dukes at the present time (August, 1939) is president of the California Medical Association.

(Continued on Page 24)



## Lift the Blockade

### *for the Hay Fever Sufferer*

The engorged nasal mucosa, which blockades the upper respiratory passages and interferes with breathing, is a source of considerable annoyance to the patient with hay fever and other forms of rhinitis.

Topical application of Neo-Synephrin Hydrochloride relieves the congestion promptly and efficiently, reduces the lacrimation and sneezing, and provides free breathing.

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Freedom from sting.. More sustained action than epinephrine or ephedrine.. Less toxic in therapeutic dosage than epinephrine or ephedrine.. Stability—may be sterilized by boiling.. In dosage recommended, Neo-Synephrin does not usually produce "nervousness" or insomnia.

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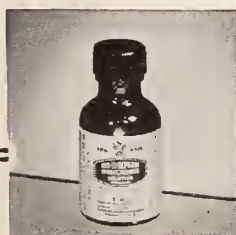
1/4% for dropper or spray  
1% for resistant cases  
(1-oz. bottle)

### EMULSION

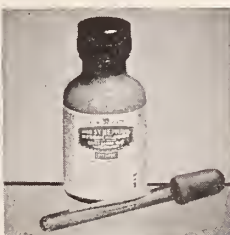
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\$5,000.00 ACCIDENTAL DEATH	For
\$25.00 weekly indemnity, accident and sickness	\$33.00 per year
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## TWENTY-FIVE YEARS AGO

(Continued from Page 22)

the State and for which the necessary number of signatures was obtained to place the same on the ballot for the coming election. Many individuals signed this petition because the facts were misrepresented to them, and they did not realize that they were helping a proposed law that would have the effect of practically doing away with all regulation of the practice of medicine. The proposed act would repeal all other medical practice acts, and it would immediately license anyone who has been in actual practice "of any drugless system for six months prior to the taking effect of this act," merely upon the payment of a fee of twenty-five dollars. It would provide that every licentiate shall have "the same rights and privileges granted to other persons now practicing any system of treating sick or afflicted

human beings under any of the laws of the State of California," and would legalize birth and death certificates signed by the same. All licentiates would be permitted to use the title "doctor." On the Board of Examiners (nine members) there would be appointed representatives of at least seven "schools" of drugless healing. . . .

*From "Doctor Vaughan's Report on Stanford."*—University of Michigan, Ann Arbor, Department of Medicine and Surgery, Office of the Dean, June 9, 1914.

To President J. C. Branner, Leland Stanford Jr. University, Palo Alto, Calif.

Dear Doctor Branner:

In compliance with your telegraphic request I have visited Palo Alto and San Francisco and inspected the libraries, laboratories and hospitals of Stanford University. The laboratories of chemistry (general, physical, inorganic, organic and physiological), biology, histology, neurology and physiology are well housed, adequately equipped and exceptionally well manned. In all these, high grade work is being done. The laboratories of bacteriology and anatomy need better housing and I understand that this is to be provided in the near future. But in the buildings now occupied, most excellent work is being done. In fact, each of the scientific departments at Stanford is under the direction of an eminent man supplied with able and enthusiastic assistants and with necessary equipment. There is abundant evidence even in a hasty inspection that the appropriations have been economically and wisely expended and that good work is being done both in instruction and in research.

I wish to compliment the Trustees and President upon the evident wisdom which they have displayed in the development of these departments of the University. What I have said of the scientific branches is equally true of the other departments of Stanford University. Although one of the youngest of the higher institutions of learning in this country, Stanford ranks as one of the best in all departments, both scientific and humanistic. In all branches it represents the highest aims and ideals. While I am not fitted to express anything more than a general opinion as to other than scientific education, I wish to emphasize the fact that all learning is one, and the same spirit should pervade the whole. This I believe to be true at Stanford. It furnishes a wholesome atmosphere in which the student can grow, whatever special line of training he may follow later. . . .

Lastly, I come to the matter on account of which I was called to visit you. The time may come when it may be wise to consolidate the two university medical schools of San Francisco, but I do not believe that this would be wise at present. Stanford, from what I can learn, can afford to develop its medical school without material hindrance in the

(Continued on Page 26)

"It has been estimated by Tisdall that more than half the foods in the ordinary American diet have no appreciable content of vitamin B<sub>1</sub>."\*

\*Story of Vitamin B<sub>1</sub>, Tisdall, JAMA (1935) 105-1583

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**Ralston, the hot wheat cereal, is the easy economical answer to the problem of vitamin B<sub>1</sub> deficiency**



Ralston is a delicious hot cereal made from premium whole wheat with coarsest bran removed. Then it is enriched with 2 times the amount of wheat germ found in whole wheat. Wheat germ, as every doctor knows, is the richest natural source of vitamin B<sub>1</sub>.

## Wheat Germ Contains



6 or 7 times as much vitamin B<sub>1</sub> as eggs or ordinary whole cereal.



16 times as much vitamin B<sub>1</sub> as spinach.



40 times as much vitamin B<sub>1</sub> as milk.

Ralston costs only 25¢ for a 24-ounce package. Supplies approximately 45 International Units of vitamin B<sub>1</sub> in each ordinary serving. It is available at grocery stores everywhere.



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Please send me a copy of your Research Laboratory Report, and samples of Ralston, the Wheat Cereal which is "double-rich" in vitamin B<sub>1</sub>.

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*Distributors of BAUSCH & LOMB PRODUCTS*

ESTABLISHED IN EIGHTY-FIVE WESTERN CITIES

### **TWENTY-FIVE YEARS AGO**

(Continued from Page 24)

growth of other branches, and I believe that this is the wise thing to do.

I am aware of the fact that a hasty visit such as I have made may give erroneous impressions and I would not have you attach any great importance to this report, but I have tried to look at matters from a broad viewpoint and to hold constantly in mind the good of Stanford University as a whole. I have considered it unnecessary to go into financial or other details with which you are much more familiar than I am.

In conclusion I wish to thank you and other members of your faculty for the many courtesies shown me, and to express the hope that the growth of Stanford University during the past quarter of a century, phenomenal as it has been, may be surpassed in its future developments.

With great respect, I am

Yours most respectfully,

V. C. Vaughan.

### **BOARD OF MEDICAL EXAMINERS**

(Continued from Text Page 144)

"Army, Navy, and United States Public Health Service doctors who have not paid their annual registration fee to this State are not permitted to have a private practice, Attorney-General Earl Warren ruled today. Warren, in his opinion directed to Dr. Charles B. Pinkham, secretary-treasurer of the Board of Medical Examiners, stated that Government doctors do not forfeit their medical licenses, but do lose their right to practice within the State sixty days following commencement of the taxable year." (San Francisco *Call-Bulletin*, July 13, 1939.)

"Governor Culbert Olson today signed two bills making the sale of dangerous chemicals as reducing remedies and ingredients of eyelash and eyebrow dye a felony, similar to recent Federal legislation. Numerous cases of blindness have resulted from preparations using the chemicals. . . . One prohibits dinitrophenol for human consumption . . . the other prohibits the sale of, as eyebrow and eyelash dyes, the dangerous chemical coal tar dyes, diphenylamin, para-phenylenediamine and paratoluylenediamin. . . ." (Hollywood *Citizen-News*, June 17, 1939.)

"Legislative action has been completed upon a measure which is designed to make more difficult the abuse of prescriptions issued to obtain narcotic drugs. . . . Under the bill physicians would write prescriptions for narcotics in triplicate, retaining one copy. The druggist filling the prescription would retain the original and send a copy to the State Division of Narcotic Enforcement. The prescriptions would be written upon special blanks to be furnished to the physicians in limited quantities and which would bear serial numbers. Under the present law, physicians write prescriptions for narcotics in duplicate, retaining one copy and the druggist who fills the prescription retaining the original." (Sacramento *Bee*, June 15, 1939.)

"Dr. George H. Parchen, chiropractor at liberty on \$5,000 bond and on trial in superior court for alleged murder of Mrs. Martha Wilma Anderson, 16, was back in jail last night, unable to provide additional \$2,000 bond demanded when he was arrested on new charges. Plight of Mrs. Jewell Eva Adams, 19, rushed to county hospital Thursday night after suffering severe hemorrhages, was called to attention of the sheriff and district attorney yes-

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**Hydrotherapy Combined With a Warm Dry Climate**

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*For particulars write*

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terday. An investigation that followed resulted in issuance of a warrant for Parchen and issuance of a search warrant desired in the hope that a certain instrument might be found by sheriff's men in his offices at 821 B Street. . . ." (San Diego *Union*, July 1, 1939.) (Previous entries, October, 1934; January and April, 1935; April, 1938; July, 1939.)

"Edward and Olive Hurlbert, whose 'cure' for tuberculosis is being tested on twelve patients in a Mentone rest home at county expense, today are under two years' probation for practicing medicine without a license. They were given a suspended sentence of 180 days in jail yesterday by Los Angeles Municipal Judge Harold B. Landreth. The sentence came at the conclusion of a long probationary hearing. Other terms stipulated by Judge Landreth are: They must not diagnose any disease, prescribe remedies for any illness, personally administer their method of treatment or enter financial agreements of fee splitting with physicians. They must comply with all regulations regarding the manufacture and sale of patent medicines if they continue the formulation of their medicine. . . . The rest home employed for the experiment is just south of the point where Mill Creek Road crosses the Zanja." (Redlands *Facts*, June 22, 1939.)

"Violation of Federal narcotics laws was charged in thirteen indictments returned yesterday by the Federal grand jury here against eleven San Diegans, including a physician and two druggists—Dr. Paul L. Markley, and Charles J. Foerster and George Irwin, druggists." (Los Angeles *Examiner*, June 29, 1939.)

"Charges of violation of the medical practice act were filed yesterday as special agents of the State Board of

Medical Examiners and local police arrested Dr. Harlan McKinney, Santa Rosa chiropractor, and an assistant known as 'Doctor Miller,' but identified as an uncle of McKinney. The chiropractor was accused of thirteen violations of Section 2141 of the Business and Professions Code of California, which includes the medical practice act, District Attorney Toland C. McGettigan said. One count was filed against 'Doctor Miller,' said to have admitted operating under a fictitious name. Complaints were signed by Mrs. Clara Baber of Chanate Road, near the Sonoma County Hospital, who charges Doctor McKinney used surgical instruments in treatment of internal growths, treated her for goitre and applied electrical treatment for internal conditions, in addition to prescribing medicines. 'Doctor Miller,' McGettigan said, is not a licensed chiropractor or physician, but despite this had allegedly given lamp treatments and pills to an agent of the Board of Medical Examiners. . . . Officers later seized quantities of surgical instruments, medicines and other paraphernalia in the office. . . . Mrs. Baber, now under care of local physicians, is reportedly suffering from an incurable disease." (Santa Rosa *Press-Democrat*, June 30, 1939.)

"Alleged failure of Dr. D. A. Gazzaniga, 1419 West Fourth Street, to report treatment of a gunshot wound resulted in the filing of a misdemeanor complaint against him yesterday by the city attorney's office. The homicide squad presented evidence showing that the doctor had treated a woman, Mrs. Blanche Tyler, Tuesday night, but had failed to report it to the police department. . . ." (Los Angeles *Daily News*, July 16, 1939.)

"Dr. R. Wayne Harris, head of Dr. Wayne Harris and Associates, yesterday was found guilty on Harrison nar-

(Continued on Next Page)



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## BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

cotics act violation charges after testimony that he would issue prescriptions 'not in good faith.' Federal Judge Leon R. Yankwich heard the case without a jury. Date of sentencing Doctor Harris was set for September 12. Maximum sentence is \$4,000 fine and ten years' imprisonment, or both. . . ." (Los Angeles Daily News, July 7, 1939.)

"Immigration authorities may be asked to study the status of Dr. Alexis Romanoff, convicted by a jury in Beverly Hills last week of practicing surgery without a license. . . . Romanoff, alias Romano Nicholas Trotsky, removed the tonsils of two doctors and one other person, it was brought out at the trial. He was sentenced to spend 180 days in jail on each count but City Judge Charles J. Griffin suspended 180 days of the 540-day sentence on condition that Romanoff leave the state upon his release from jail and does not return for two years. Meanwhile, Romanoff's surgical instruments, entered as evidence at the trial, today are under attachment for a tailoring bill." (Beverly Hills Citizen, June 30, 1939.) (Previous entries April, 1937; May, 1938; July, 1939; Annual Report, Board of Medical Examiners, 1937 and 1938.)

"Frank John Thomas Boyle, who was arrested several days ago after he assertedly attempted to extort \$500 from Dr. L. C. Audrain, was indicted yesterday by the Federal grand jury. Doctor Audrain was one of several physicians whom Boyle assertedly threatened in letters unless they paid him nominal amounts. . . ." (Los Angeles Times, July 7, 1939.)

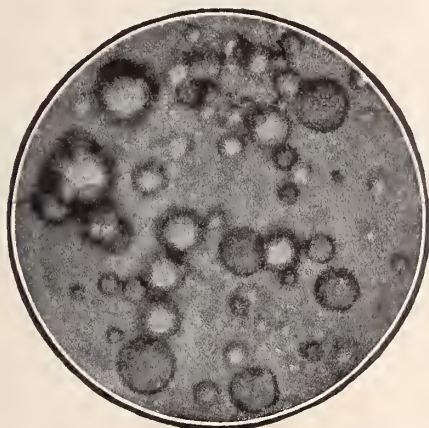
"Dr. Lewis Robertson (licensed chiropractor), proprietor of a Santa Cruz health institute, today was found technically guilty of violation of the State medical laws and was fined \$1.00 by Police Judge W. A. Deans. Robertson had been accused of using a vapor treatment which allegedly required a physician's license." (Santa Cruz News, June 24, 1939.) (Prior entry June, 1938.)

"Dr. James G. Reynolds, chiropractor, has been given court protection from embarrassment or harassment by the State Board of Medical Examiners. Superior Judge William S. Baird enjoined the Medical Board and others from interfering with Dr. Reynolds' business. Dr. Reynolds, operator of offices in Long Beach, Los Angeles and Hollywood, declared investigators for the state body made unnecessary inquiries into his radio educational program and false statements that he was conducting a racket. . . ." (Los Angeles Examiner, July 4, 1939.)

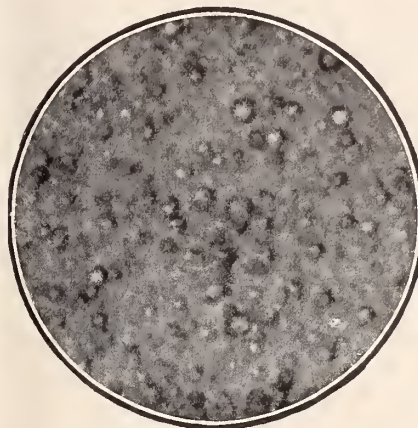
"Doctors serving members of the municipal employees health service system will be paid 54 cents on the dollar for their services during April, it was announced yesterday. The unit payment is an increase of 4 cents on the dollar over the March rate. During the first three months of the system's operation 100 cents was paid, 50 cents in January, 65 cents in February. . . . The report on disbursements showed that administration of the system during March cost \$2,966.04. The sum includes \$1,810.32 for personal services and \$300 for bond premiums of directors. In addition to the doctors' compensation, hospitals were paid \$6,753.60, x-ray laboratories, \$220.50; clinical laboratories, \$815.40; and \$2,367.87 for personal service and office ex-

(Continued on Page 30)

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and Butter Fat Globules . . .  
before Homogenization



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and Butter Fat Globules . . .  
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<sup>1</sup>Journal AMA 111:703 (August 20, 1938)

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### Bequest Forms: Unto the California Medical Association\*

#### FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of \$——— to be known as the —— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of \$———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the —— Gift, the following described real property situate in the County of ——, State of California, and more particularly described as follows, to wit:

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

\* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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A. H. WARNER, Ph. D.

## BOARD OF MEDICAL EXAMINERS

(Continued from Page 28)

penses of the medical department . . ." (San Francisco Examiner, June 24, 1939.)

"Every sheriff's office in California has a matron to look after female prisoners, but only a few counties can boast of a woman physician as matron. Sheriff John E. Loustallot said he is proud of the fact that Kern County is one of the few. Dr. Clara Rinehart, a graduate of the Chicago Homeopathic Medical College, for many years a practicing physician and surgeon in Iowa and California, is matron at the Kern County jail . . ." (Bakersfield Labor Journal, June 16, 1939.)

"Dr. Rutherford B. Irons, former mayor of San Diego, yesterday was indicted on a charge of assault with a deadly weapon after an all-day grand jury session called to investigate stabbing of Miss Betty June Rand, 30, at the San Diego club May 30. Miss Rand had recovered sufficiently to testify yesterday. The physician was arrested a half hour later in his rooms at the club. Judge Arthur L. Mundo, before whom the true bill was returned, had fixed bail at \$1,000. The offense charged carries a statutory penalty of one to ten years in prison . . ." (San Diego Union, June 16, 1939.) (Previous entries, March, April and August, 1935.)

"Governor A. Harry Moore has signed into law a bill requiring chiropractors to have the same degree of training as medical doctors. Opponents of the measure contended it will put chiropractors out of business, but a source close



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**THE POTTINGER SANATORIUM AND CLINIC, Monrovia, California**

to the governor said today it is his opinion that the bill will not drive them out since it does not apply to persons now practicing." (Associated Press Dispatch, dated Trenton, New Jersey, July 4, 1939; printed *Sacramento Bee*, July 4, 1939.)

**Try Pabulum on Your Vacation.**—Vacations are too often a vacation from protective foods. For optimum benefits a vacation should furnish optimum nutrition as well as relaxation, yet actually this is the time when many persons go on a spree of refined carbohydrates. Pabulum is a food that "goes good" on camping trips and at the same time supplies an abundance of calcium, phosphorus, iron, and vitamins B and G. It can be prepared in a minute, without cooking, as a breakfast dish or used as a flour to increase the mineral and vitamin values of staple recipes. Packed dry, Pabulum is light to carry, requires no refrigeration. Easy-to-fix Pabulum recipes and samples are available to physicians who request them from Mead Johnson & Company, Evansville, Ind.

**Medically Guided Vacations Urged by New York Doctor.**—Pointing out that more than 35,000,000 people take part in undirected vacational migrations in the United States annually, Dr. Charles I. Singer, Long Beach, New York, in *The Journal of the American Medical Association* for March 11, says that the American public does not know that for the healthy individual medical vacational guidance is advisable and that for the sick it is imperative.

Doctor Singer says that this vast number of people are confronted with a climatic change, stimulating or sedative, which if properly selected can be utilized in preventing and influencing disease.

He states that a comparison of Europe and America shows that the health-promoting natural resources of the former are far more effectively developed than those of this country and outlines a comprehensive plan for the development of American climatic treatment which, he says, will not only benefit the American public but also aid in the advancement of medical science.

"The medically supervised health resort is the logical place to care for the vacational migrant properly," Doctor Singer contends. In Europe this fact is recognized and spas and sanatoriums are given an important place in climatic treatment. However, he declares, "the present situation of the American health resorts is somewhat discouraging. There are only a dozen of the first order. They necessitate travel of several hundred miles from some parts of the country. Less than one per cent of the migrators select them as vacation grounds. Nearly all of them have shown a decline of patronage in the last few years. This decrease of patronage is due partly to economic causes but mostly to lack of physicians' interest, because of lack of reliable information in the literature concerning spas, lack of medical supervision of spas and unfounded claims in spas booklets.

In a resort lacking well-organized medical supervision the general practitioner is too busy during the vacation season. He finds it difficult to answer the many questions about the beneficial effects of the resort asked by the bewildered vacationist. He should be able to answer them with scientific certainty, but the basic facts are not yet established. Undirected, the vacationist accepts whatever is offered. No wonder he falls prey to quacks, charlatans, and cultists.

"To develop the modern American climatic treatment, the following steps seem to be important: an inventory of

(Continued on Page 34)





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# CALIFORNIA AND WESTERN MEDICINE

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*Leaflet Regarding Rules of Publication.*—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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## EDITORIALS†

### FEDERAL WAGNER BILL, S. 1620: AND ITS BACK-DOOR SUBSTITUTE, HOUSE RESOLUTION, H. R. 6635

**Wagner Health Bill, S. 1620.**—In recent issues of the OFFICIAL JOURNAL, the scope and significance of the Wagner Health Bill (S. 1620), have been discussed;\* and in our comment, last month, we wrote:

It has been stated that the Wagner Health Bill will probably not be voted out of committee during the present session of Congress; but that does not mean it will not reappear, with stronger backing than ever, in the succeeding Congress.

\* \* \*

**Senator Wagner's Amendments to H.R. 6635.**—What was forecast at that time has come true, only more quickly than then appeared likely, and not in a new or revised and separately introduced Senate bill at the next Congress, but in one, in the form of what might be called a back-door substitute, in the last days, probably, of the current Congressional session! The sponsor of the new effort was none other than the New York Senator, Robert F. Wagner, himself, author-in-chief of S. 1620, who, through certain amendments to a resolution concerning the Social Security Board, in a bill (H.R. 6635), that originated in the House of Representatives, has progressed well on the way to passage with a "health" measure even more far-reaching than his original and much talked of "Wagner Bill" (S. 1620).

H.R. 6635, the Social Security measure here referred to, having been favorably acted upon by the House of Representatives, at this writing is pending in the Senate (where Senator Wagner introduced his amendments), and now is under consideration by its Finance Committee.

The menace to public health and medical practice interests, as embodied in H.R. 6635, lies in the fact that its "health provisions," or amendments, are a sort of "riders" to a measure of major scope, that may be sent to a Conference Committee of Senators and Representatives, before which, however much otherwise it may be discussed, no hearings might be held on Senator Wagner's attached health amendments! Moreover, since reports of a

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

\* In June issue, on page 447; in July issue, on page 4.



Conference Committee have privileged places on the Congressional calendars, and are not open for amendment, such health or medical service inclusions may go on to passage, in this case as part of a Social Security measure, the major purposes of which may have implications necessitating, in the opinion of Congress, prompt action.

\* \* \*

**Responsibility of County Societies and Individual Physicians, Regarding H.R. 6635.**—During the two weeks prior to the writing of these comments, the officers of the component county societies of California Medical Association were made acquainted with these facts, to enable them to write to their respective Congressmen and the two United States Senators.

It will be in order, therefore, for every member of the California Medical Association promptly to write to United States Senators Hiram Johnson and Sheridan Downey, and acquaint them with the reaction of members of the California medical profession on the medical service amendments proposed by Senator Wagner of New York. If Congress is still in session at the time of such writing, the communications should be sent to Washington as per the addresses given with the roster.<sup>†</sup> If subsequently, then to the same or to their home addresses. A member of the Association who personally knows his Congressman, may wish to follow up such letters, as opportunity presents, with personal interviews. For, as has been stated in these columns, these issues are not dead; and unless Congressional actions are watched, there is real danger that "health or medical service" enactments may slip through Congress, suddenly to launch projects upon the Nation, backed by large resources of federal funds, that would be almost certain promptly to establish an administrative bureaucracy impossible to overcome, once it is officially established. To be remembered, also, is that bureaucracies, once in being, usually set about immediately to enlarge their scope, functions, and powers.

\* \* \*

**More Concerning the Nature of the Amendments to H.R. 6635.**—An insight into the real nature of Senator Wagner's amendments to H.R. 6635 may be gathered by a perusal of excerpts of a communication recently received, from which we quote as follows:

*In Senator Wagner's Health Bill, S. 1620, it is proposed that the Social Security Board be authorized to coöperate with the several states in establishing state medical services. Such authority carries with it authority on the part of the Board to determine whether any proposed state medical service is or is not satisfactory. If the Social Security Board determines that it is not satisfactory, then the state is not to receive Federal aid. If Federal aid is granted, and if, at any time, the Social Security Board determines that the operations of the state service are not in accordance with the agreed plan, Federal aid may be withdrawn. Obviously, under such legislation the Social Security Board might easily impose on the several states any form of state medical service that it favored, under penalty of denial of Federal financial aid if the state set up a service of which the Board did not approve.*

*Under the national medical service proposed by Senator Wagner's amendment, the Board would be in supreme control throughout the states. The states would have no voice in the management of the proposed service. Neither would they be called on to pay any part of the cost. An examination of Section 202 (d), proposed as an amendment by Senator Wagner, gives some idea of the extent of the service proposed. The amount to be expended for the maintenance of such services, as stated in the amendment itself, is vague, and whether it would, even under the most favorable conditions, cover the cost of an effective service, no one can tell. If it does not, Congress might be called on to authorize larger expenditures, or the medical corps throughout the country might be called on to render all necessary services for whatever amount might be available.*

*Senator Wagner's proposed amendment to H. R. 6635 would set up, if enacted, a national medical service for the benefit of a limited group of employees of private industry throughout the entire United States. Excluded from the hypothetical benefits of that service would be farmers and farm labor, domestic service, professional men and women, and a multitude of persons engaged in commerce, the arts, and trades on their own account. And yet the expenses of the service are apparently to be paid out of the general revenues of the country, to which every inhabitant contributes, either directly as a taxpayer or indirectly as a consumer. It requires no depth of insight to see that a revolutionary project of this kind requires more study and consideration than it can receive as a newly proposed amendment to a lengthy bill of which it is not an essential feature within the few days that now remain before the adjournment of Congress.*

**THE WAGNER NATIONAL MEDICAL SERVICE AMENDMENT TO H. R. 6635 SHOULD BE OPPOSED.**

\* \* \*

**The Time to Act Is Now.**—Is it, therefore, expressing too optimistic a note to state the hope that many, many members of the California Medical Association will take the time to do their bit in this matter, by writing to Senators Johnson and Downey, and to their respective Congressmen? *Why not pen the letters before the intention is forgotten?*

#### THE PROFESSIONS: ARE ALL TO BOW TO GOVERNMENTAL PATERNALISM?

**Washington Health Conference and Its Aftermath.**—Much water has gone over the dam since the July, 1938, National Health Conference met in Washington, D. C., to receive the report of President Roosevelt's Interdepartmental Committee, and the recommendations of the Committee's technical experts. The almost prearranged program of that gathering was followed by the indictments against certain officers of the American Medical Association and the Medical Society of the District of Columbia, the Government's spokesman being Assistant United States Attorney General Thurman Arnold, who promulgated his intentions with ceremonious releases to the great press associations; so that soon, from Maine to California, and from Florida to Washington, the seeds of distrust were widely sown against the entire medical profession of the United States.

This propaganda, for supposedly better care of the sick, carried on through governmental and other agencies, has well served the aims of non-medical proponents of compulsory health laws, who seem, in their own thought-confusions, by and large to be unable to understand that sickness, an end result very often due to poverty

<sup>†</sup> For roster and Washington address, see page 116.

and associated public welfare deficiencies, will not be materially lessened by doing away with present day methods of medical practice, so long as the causative factors of disease, themselves, actively remain; a fact impressively serious since it may be said that it is an almost hopeless task to try to convince most of these compulsory health system exponents of the errors in their thinking. With many of them the determination that the system of medical practice shall be changed, to harmonize with their personal views, has become almost an obsession, factual data no longer being regarded as of worth, while the experience of almost one hundred thousand practicing physicians is set aside as so much testimony of merely prejudiced witnesses!

\* \* \*

**Other Professions Are Now Involved.**—When the publicity against the medical profession was first launched, it appeared for a time that, of the various professions, medicine alone had been singled out for attack. However, as months flitted by, members of the profession of architects have seen much of the work in their fields go into governmental architectural offices. And, during the week of July 10, when the American Bar Association was in session at San Francisco, came forth another blast against one of the learned professions, the bureaucratic mouthpiece this time being United States Solicitor-General Robert H. Jackson who, in his preachments to legal colleagues on their obligations to fellow laymen, of the lower income groups, practically told his audience of attorneys, that, if they themselves would not take steps to provide more “adequate *legal care*,” the Government itself might step in and furnish that service for the masses! Whatever the Honorable gentleman had in mind, the following, among other statements by the Solicitor-General, would certainly permit such implication:

The Government is already, through relief rolls and WPA projects, providing support for a very substantial number of lawyers. At the same time it sees a large number of citizens who help pay taxes deprived of legal services because they cannot pay the provisional scale of prices.

I have grave doubts that society will continue to support idle lawyers and at the same time go without their service once it wakes up to what it is doing.

Our bar cannot claim to be discharging its full duty to society by rendering service that is out of reach of an increasing proportion of our people. . . .

\* \* \*

**Learned Professions Have Common Interests.**—The modern day practice of medicine includes not only the medical profession itself, but its intimate relations with the professions of dentistry, pharmacy and nursing. An accessory service, too, that would be involved in governmental activities is the profession of veterinary medicine. The professions of law and architecture have already been mentioned; and from what has been said, it must be agreed that these will always have common interests, so soon as revolutionary attempts, such as have been indicated, are made to imperil proper development along practical evolutionary lines. That being so, self-preservation and loyalty to the

common ideals and proven methods of these professions may well lead their disciples to ask themselves why they should not unite in organizations through which their joint and several interests may be safeguarded to better advantage? In industrial activities, this lesson of joint effort was long ago learned by both labor and the capitalist representatives of industry; and to them no objection is or can be taken, when given legitimate expression in legislative halls, factories, and workshops, or with those active in agricultural pursuits.

\* \* \*

**“Oregon State Federation of Professional Societies.”**—In Oregon, the “Oregon State Federation of Professional Societies” with representatives of the professions mentioned, and, in addition, teachers, certified public accountants, and physiotherapists, has existed for several years, and has proven itself an active and efficient body. In our State, the Public Health League of California functions in analogous manner. The opening paragraph in the 1933 Legislative folder of the Oregon Federation is of live interest explaining, as it does, some of the purposes of the organization:

#### GENERAL STATEMENT

The Vital Character of High-Type Professional Service:

The professional men and women of the State of Oregon comprise over twelve thousand trained persons whose services are essential to the health, safety, and progress of our people. The physician, dentist, pharmacist, and nurse guard our health; the veterinarian protects the health of our domestic animals, and insures the purity of our milk supply; the teacher is responsible for the development of the mind and character of our children; the engineer and architect are responsible for the safety and beauty of our homes and buildings; the certified public accountant protects the integrity and financial soundness of our business affairs; and other professional men and women render equally vital services.

Professional Standards:

In order to insure that the quality of service is maintained in the interests of the public they serve, the professions of the state, through their own efforts, have established proper legal standards of character and education. These standards are continually under attack by those who are unable to meet the necessary requirements and seek to lower them to their own standard of preparation, irrespective of the public interest. In order to successfully resist these attacks the various professional societies have affiliated and propose to work as a unit in supporting candidates for public office who are honest and sympathetic to the enactment of sound professional legislation and the active enforcement of professional laws.

Representation of Professions on Administrative Boards:

A further object of the Federation is to secure the recognition of the professions in the administration of all laws dealing with matters in which the technical knowledge of the various professions is of particular value. . . .

\* \* \*

**How County Medical Societies May Do Their Part.**—The foregoing is here presented for its suggestive value, and it is to be hoped that what has been said in the meritorious preambles of the Oregonians and the California Public Health League, will lead every component county medical society of the California Medical Association to give over one or more of their fall or winter meetings to joint sessions with other professional groups as are mentioned above. At such meetings,



problems of common interest can be very profitably discussed. In some county medical societies of the State, as a matter of fact, this has been the standard custom for some years, and there is abundant testimony that much good has resulted therefrom. If your own organization has not done so, why not urge the officers and program committee to consider the possibility of similar meetings?

#### POSTGRADUATE CONFERENCES DURING FALL AND WINTER MONTHS

**Attention of County Society Postgraduate Committees Requested.**—Most of the County Societies have appointed Postgraduate Committees upon which falls the responsibility of making surveys of local postgraduate needs and facilities, and of supervising the arrangements for guest and local lecturers and demonstrators. Where local postgraduate committees do not exist, the county society officers may act as the committee. Such committee members may wish to utilize the opportunities existing, during the vacation months, to develop plans for clinical conferences to be held in the coming fall or winter, with special reference to probable dates and places of the meetings, and geographical territory to be included in the conference effort, and to select major topics seemingly most desirable for presentation, as well as the guest speakers whose presence is desired. Tentative decision on whether a one or two-day clinical conference would be the more desirable, with best days of the week or month for the gatherings, as well as estimates of expenses in necessary publicity and transportation costs, are other items of importance to be debated.

\* \* \*

**State Association Committee on Postgraduate Activities.**—The Committee on Postgraduate Activities of the California Medical Association, acting through the Central Office in San Francisco, will welcome early communications from all who are interested. A roster of members who have signified their willingness to participate in the proposed clinical conferences is available, and names of guest speakers will be gladly sent for consideration.

Of importance, also, are such matters as the transportation and hotel expense of guest speakers. Speaker colleagues, who give time and effort in these activities, have already, by so doing, indicated their willingness to bear a generous part in the postgraduate work; but they should not be called on, in addition, to donate their traveling and hotel expenses. It is only right that the audience participants should bear their proportion of the conference costs, especially since this item can usually be covered through a modest registration fee, designed to defray expense of sending out notices, engaging meeting halls, and providing for transportation and hotel service. The State Association Committee on Postgraduate Activities is permitted to aid financially in only a limited extent. Conference Committees are reminded that travel expenses

are in proportion to distances covered, on which account it may be desirable to consider guest speakers from centers not too far away.

As before stated, correspondence is invited and should be addressed to the Association Secretary, who, through by-law provision, is also secretary of the California Medical Association Committee on Postgraduate Activities.

#### CALIFORNIA DEPARTMENT OF PUBLIC HEALTH AND ITS DEFICIENCIES (?): AS INTERPRETED BY PROFESSOR PENROSE

**Assembly Bill 2107.**—The story of Assembly Bill 2107, introduced at Sacramento on January 25, 1939, and designed to legislate into being a new set-up for the State Board of Health, was outlined in the opening editorial of the July issue of CALIFORNIA AND WESTERN MEDICINE.\*

\* \* \*

**California Medical Economic Survey.**—The edition of the "California Medical Economic Survey," brought off the press in 1937, and a copy of which was then sent to each member of the California Medical Association, contained only the factual data of the survey, as embodied in 143 tables, 57 charts and 14 pages of form blanks, with the addition of a limited amount of informative text.

\* \* \*

**A Later Volume.**—More recently and during the current year, another volume dealing with the survey has been issued, in which original and revised text appear, the financial sponsorship for its production being presumably indicated in a preface with the following words:

The California Osteopathic Association, largely through the loyal efforts of its legislative director, Dr. Glenn P. Caylor, has been responsible for keeping the study alive by means of last-minute emergency financial appropriations, and by this aid, extended at a time when it was so badly needed, publication of the complete and uncensored findings has actually been effected. The Russell Sage Foundation of New York has also been very helpful in this emergency.

Part IV of the volume is entitled, "The Organization of Medical Services," with chapters: "The Public Health Situation in California," on page 283; "Nature and Extent of Public Health Activities," on page 306; "Health Insurance," on pages 353-405. Concerning the authorship of this portion of the book, in which considerable revision from the original text of 1937 has been made, the preface states:

The authors [Dodd and Penrose] have divided the work between themselves, Professor Dodd being responsible for the final manuscript of Parts I, II, III, and V, and Professor Penrose of Part IV. . . .

\* In the comments in the July issue, reference was made to the "Bureau of Public Administration of the University of California," with which Professors May and Penrose are affiliated." We had been misinformed in regard to the above. Professor Penrose has no connection with the Bureau of Public Health Administration, although he did speak on Assembly Bill 2107, in the Committee hearing at Sacramento. Professor May is Director of the Bureau of Public Health Administration and spoke to lay audiences on health insurance, but did not appear in connection with the State Board of Public Health Bill (A. B. 2107). We express regret at our error in statement.—Editor.

**Purpose of the Present Comments.**—In our present comments, in one sense, supplementary to the discussion of A.B. 2107, on pages 1-4 in last month's issue of CALIFORNIA AND WESTERN MEDICINE, we desire to discuss somewhat only the fourteen "conclusions" given on page 303, at the end of the chapter, "The Public Health Situation in California." Since the writer was for some years a member of the State Board of Health, and is, therefore, somewhat familiar with its history and record of achievement, it may be in order briefly to call the attention of members of the medical profession to astonishing statements which Professor E. F. Penrose has made in his so-called "Conclusions." These fourteen summings up by Professor Penrose and our comment follow:

*Conclusion 1.*—*In 1870 California, along with Massachusetts, occupied a position of leadership in public health organization in the United States; but as regards state activities in public health, it has for a long time lost all claim to leadership.\**

*Comment.*—The public health record of California does not indicate any loss in leadership. In spite of handicaps established by the presence of large groups of unassimilable foreign-born, including a large Mexican population, the migration to California of hosts of health-seekers and agricultural laborers from other states, the necessary use of surface streams, largely, for public water supplies, the State's proximity to Oriental countries, the presence of inordinate numbers of health cultists, and other detrimental factors not encountered in other states, the public health record of California is far better than that of the majority of the states. In fact, it compares favorably with that of states that expend far larger sums of money for public health services and which do not encounter the obstacles found in California.

*Conclusion 2.*—*This loss of leadership seems to have been due partly to the retention of an antiquated form of organization of the State Department of Public Health, under which activities are controlled by a board of seven persons, the majority of whom have had no previous experience of public health activities, and whose experience and interests are primarily centered on private medical practice.*

*Comment.*—The contention that there is a loss of leadership in California, due to the form of organization of the State Department of Public Health, would also apply to at least twenty-nine other states which have similar organizations.

These include Indiana, Minnesota, New Jersey, Wisconsin, and Maryland, all of which are acknowledged as having outstanding state public health organizations which achieve excellent records in public health service.

*Conclusion 3.*—*The office of State Director of Public Health in California in no way corresponds to the office of health commissioner in the states in which public health organization has made the best development. Administrative and executive functions are vested in the whole Board*

\* The California State Board of Health came into existence in 1870, largely through the efforts of the medical profession, under the inspiring leadership of Dr. Thomas M. Logan, a South Carolinian who settled in Sacramento in August of 1850. In that same year, Doctor Logan, with Dr. E. S. Cooper of San Francisco, issued the call for the organization of a State Medical Society, and in 1870 he was instrumental in its reorganization. Doctor Logan was then president of the Medical Society of the State of California in 1870, and at the same time he was also secretary of the newly organized California State Board of Health. It is evident, therefore, that the initial public health efforts in California were, from the beginning, interwoven with those of organized and scientific medicine.

*of seven members and not in the Director alone, with the result that the Director is not in a position to direct. The law fails to specify that direct qualifications in public health administration shall be required of the members of the Board or even the Director. An able and energetic Director would be hampered by the necessity of carrying with him a board likely to be reluctant to permit any supposed encroachment of public health activities on what is regarded by medical practitioners as a field reserved to private practice.*

*Comment.*—In California the State Board of Public Health was organized entirely upon the initiative of the medical profession. For almost three-quarters of a century the responsibility for the maintenance of public health in California has been placed upon a Board composed of doctors of medicine. The executive officer has always been a member of the Board, and the fact that serious emergencies, such as outbreaks of bubonic plague,\* epidemic poliomyelitis and many other acute infectious diseases, have been terminated through control exercised by the Board, indicates that this form of organization is efficient and achieves results of lasting benefit to the public health of the State.

*Conclusion 4.*—*The maximum insecurity of tenure is attached to the office of State Director of Public Health, who can be dismissed "at the pleasure of the Governor." In all states with well organized state health departments, the commissioner of health is guaranteed at least four years in office. The present law in California leaves an opening for grave abuses.*

*Comment.*—The fact that the public health authority rests in the California State Board makes it important that the executive officer be an individual who may deliberate with other members and who may always represent the opinion of the Board. The tenure of office is important, but willingness to take part in deliberations, to abide by the majority opinion, and to successfully enforce the rules, regulations, and orders of the Board are of first importance, and lead to long tenure of office, as proved by experience.

*Conclusion 5.*—*In the states recognized by public health experts as having the best organized state departments of health, all executive and administrative powers are placed in the hands of a state commissioner of health, and a public health council exists, the functions of which are advisory and not concerned with executive matters. State health commissioners and members of advisory councils are required to have had qualifications and experience in public health administration and sanitary science, nor are advisory councils composed solely of private medical practitioners. This form of organization, found in New York, Massachusetts, Pennsylvania, Michigan, and Ohio, is demonstrably superior to the old-fashioned form retained in California.*

*Comment.*—The California State Board of Public Health has never failed to rely upon the opinions of expert consultants in all fields of public health. Its consultants are of outstanding ability.

Members of any higher judicial court are not required to have special training in corporation, crime, or other legal specialties: their general training and mature judgment enable them to provide a judicial service and to render opinions in accordance with American principles of justice to all.

Similarly, members of the California State Board of Public Health are not required to have had special training in any single branch of medicine. Their training and experience as practicing physicians enable them to formulate policies that are successful in accomplishing recognized achievements in the prevention and control of disease.

\* An illuminating example of the independence and courage of the medical profession of California, in opposition to the political forces of the State, may be found in the articles by George H. Evans on "Plague Epidemics in California" in the following issues of CALIFORNIA AND WESTERN MEDICINE: November, 1938, on page 383; December, 1938, on page 458; January, 1939, on page 24.



*Conclusion 6.—The tenure of local public health officers in California, both in counties and incorporated cities and towns, is, from the standpoint of State laws, deplorably insecure. The State Director of Public Health can do nothing to prevent the dismissal of a well qualified local health officer for political reasons.*

*Comment.*—Since the days of the New England town meeting, the policy of establishing local government within local communities has constituted the very essence of civil government in the United States.

Laws for state control over undesirable health conditions in local communities for use in emergencies are sufficient and insure the maintenance of the public's health.

The suggestion that a state health organization should exercise privileges of patronage in local communities is un-American and indicates a lack of sympathy with our existing form of government.\* It would be as logical for the proponents of this suggestion to propose that the Federal Government take over the control of the government of the states.

*Conclusion 7.—The qualifications required of local health officers under existing laws are wholly inadequate. There is no legal assurance whatever that persons appointed as local health officers will necessarily possess sufficient experience and qualifications, and the State Director of Public Health has no power to prevent the appointment of inadequately qualified persons.*

*Comment.*—This conclusion is unfair to the twenty-five counties that have organized, full-time public health units, with qualified health officers serving such units. In those counties where sparse populations and lack of funds make the organization of full-time health districts impossible, the State has always provided public health services, pending such time as adequate control measures are available in these communities.

*Conclusion 8.—A considerable proportion of the people of California are living in areas in which there are no full-time public health officers and wholly inadequate health protection is given.*

*Comment.*—It is a fact that almost 95 per cent of the population of California enjoy the benefits that come through residence in communities where full-time public health service is provided. The conclusion is, therefore, untrue.

The remaining 15 per cent receive nominal public health service from the State, and, in many instances, special services are provided as indicated.

*Conclusion 9.—Some of these areas are financially in a position to maintain full-time public health service, but public inertia must be overcome by persuasion or pressure from within and without before changes can be made.*

*Comment.*—The State provides every possible facility for encouraging the formation of full-time public health units. Within the past two years, no less than seven such units have been organized through the efforts of the State Board of Public Health. The statement is unfair in its contention that no attempt is made to encourage the development of efficient local health service. A special bureau of county health work, for example, is active in providing prematernal services.

*Conclusion 10.—Other counties are likely to remain for an indefinite period financially unable to maintain full-time public health services. Hence it would be impracticable to pass legislation compelling all counties to establish full-time public health services without making other adjustments.*

*Comment.*—The State provides at least nominal public health services in those communities that are financially unable to maintain full-time public health service. Far better results can be achieved through education in public

health than through the attempted exercise of compulsion, where such enforcement is impossible.

*Conclusion 11.—Some counties and incorporated towns form suitable units for the maintenance of public health departments, but others do not. It is desirable that in the latter local health districts be formed which in some cases will cross county lines.*

*Comment.*—For almost two decades there have been laws upon the statutes of California that would enable a local health district to cross county lines. Until recently, however, there has been only one local health district organized in California, and that has confined its limits to a single county. No California county as yet has consented to relinquish its rights as a government unit. Until such time as the whole structure of government may be changed, this attitude would, no doubt, prevail.

*Conclusion 12.—The Local Health Districts Act of 1917 makes possible the formation of local health districts which may, if necessary, cross county lines. Up to now only one local health district, that of San Joaquin County, has been formed. This district does not cross county lines, but combines county and incorporated city territory. Competent public health experts agree that San Joaquin County has one of the best county health departments in the United States. The Local Health Districts Act, however, is a permissive act, and local political difficulties would have to be overcome before advantage could be taken in many districts of the opportunities which it affords.*

*Comment.*—The organization of the San Joaquin Health District was effected through the united efforts of the local medical profession, service clubs, commercial organizations and influential residents of that county. The plan of organization is distinctive in that funds for support of the district are derived through a tax levy rather than appropriations made by the board of supervisors. Nevertheless, the district submits an annual budget for approval of the supervisors, and the funds are spent and the tax levied only in conformance with the actual needs of the district. Any county in the State may take advantage of the provisions of the Local Health Districts Act. Many of the full-time county health units in the State now have organizations that are identical with that of the San Joaquin Health District, with the exception of the fact that funds are derived through appropriations rather than tax levies. Since many of such units are subsidized through the provision of Federal and other funds, the application of the Local Health Districts Act is less advantageous than their present method of financing.

*Conclusion 13.—Six State health districts were formed in California in 1917 and a number of State district health officers were appointed after a strict civil service examination open to the candidates throughout the country. The officers appointed rendered valuable services, but, due in part to the War and in part to a less progressive attitude on the part of later State Boards of Public Health, the scheme gradually collapsed, without the adoption of satisfactory alternative methods of achieving the objectives which the State health districts were designed to achieve.*

*Comment.*—The State health district plan established in 1917 was dissolved, not through any action or attitude on the part of the State Board of Public Health, but rather through the action of the Legislature, which refused to appropriate funds for the continuation of such districts. In many states where similar districts have been formed, the plan has been abandoned as unfeasible. This is notably true in Illinois and Ohio.

*Conclusion 14.—The personnel and the resources of the State Department of Public Health are wholly inadequate to render needed assistance to local health departments, and to stimulate local interest in the formation of full-time departments of public health. Alternative remedies may be found in the revival of State health districts or the strengthening of the State Department of Public Health by larger appropriations and additional civil service personnel. But*

\* Without desire to introduce personalities, it may be of interest to note that Professor E. F. Penrose secured his American citizenship papers on February 19, 1937.

*the effectiveness of either of these remedies depends on the concentration of all executive and administrative powers in the hands of a competent and vigorous State Director of Public Health.*

**Comment.**—The California State Board of Public Health maintains a Bureau of County Health Work that devotes its whole efforts to the organization of full-time county health units, and with marked success. The plan of State district health organization has been demonstrated as impractical, not only in California, but in other states as well. Until such time as the county is abolished as a local unit of government, public health legislation must conform to existing legal standards. Whenever the counties may consent to consolidation into units, composed of groups of counties, public health laws will naturally conform to the general legal structure that consolidation would bring.

It is believed that the present personnel and present appropriations allotted to the State Board of Public Health enable full service to the public and without placing undue burdens upon taxpayers. The present director of the State Department of Public Health has served efficiently under five administrations of State government, and, since 1920, when he assumed office, most outstanding records in communicable disease control and promotion of public health have been achieved. To question the competence and efficiency of the California State Board of Public Health and the Director of the Department indicates gross ignorance of the public health record of California.

\* \* \*

**Final Comment.**—With due deference to whatever profound knowledge the authors of the book here discussed may possess along academic lines, it is our belief that more study might have advantageously been given by them, before venturing to such interpretations, with the positive commitments included in the fourteen "conclusions" here commented upon.

#### A. M. A. WINS AT WASHINGTON, D. C.

**Press Clippings Tell the Story.**—Press dispatches dated July 26, Washington, D. C., at a time when this August issue of CALIFORNIA and WESTERN MEDICINE is in press, bring the happy tidings that efforts of the United States Department of Justice, under the leadership of Assistant Attorney General Thurman Arnold, to invoke the Sherman anti-trust law of the year 1891 against the American Medical Association have come to naught, through a ruling handed down by Justice James M. Proctor of the District of Columbia Federal Court.\*

For further details, see under "Press Clippings," on page 130 of this issue.

California Medical Association members who failed to note the press dispatches referred to, should take the time to read this important news.

**Other State Association and Component County Society News.**—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 116.

\* On July 31, the U. S. Department of Justice asked the United States Court of Appeals to overrule the lower court decision.

## EDITORIAL COMMENT†

### WEATHER AND MEDICINE

The supposition that environmental factors influence the living organism is not new: no less a person than Hippocrates discussed it. Recognition of these influences has increased with the emergence of medicine from the early chaos of speculation and ignorance. The interwoven research of physicists, meteorologists, mathematicians and medical men has laid the foundation of a new branch of medical science: "Meteorobiology." The mysticism of the ancients has been eliminated, while speculation has been placed upon such a mathematical basis that it may almost be said to pertain to the realm of proved fact.

Introduced by the Norwegian school of meteorologists, a common interpretation for meteorological phenomena obviates the earlier contradictory results of various researchers. Previously, each author based his observations upon some different, uncorrelated factor such as temperature, barometric pressure or humidity; now, Bjerknes' "Front"-theory has been generally adopted. In this theory each factor is demonstrated as part of a whole syndrome, and it is this syndrome of events, occurring in forward or reverse order, which influences the living organism. Popularly, this is called "change of weather."

The most important cause of weather change is the passage of the so-called "discontinuity surface" which separates air masses of opposite physical characteristics traveling in opposite directions. The two main types of air masses are the polar, originating over the polar and subpolar regions, and the tropical, originating over the subtropical zone. These intermix to no appreciable degree, so the discontinuity surfaces are generally zones of rapid transition termed "fronts." The cold front lies between the tropical current and the advancing polar air mass; it is marked by a sharp drop in temperature, decrease in humidity and a steady rise in barometric pressure. The warm front lies between the receding cold air and the tropical current: it is marked by rise in temperature and humidity and a falling barometric pressure.

Petersen<sup>1</sup> in this country and De Rudder<sup>2</sup> in Germany have demonstrated that passage of the above fronts exerts a very definite influence upon certain diseases (and symptoms) both as to onset and course. Proved statistically is the correlation between changing fronts and the following: Laryngeal croup, spasmophilia, eclampsia gravidarum, rheumatic pains, neuritic pains (tabes), lobar pneumonia, acute upper respiratory infections, hemoptysis, apoplexy, diphtheria, acute glaucoma. A highly probable correlation exists between weather

<sup>1</sup> Petersen, W. F.: *The Patient and the Weather*, Edwards Brothers, Ann Arbor, 1935-1938.

<sup>2</sup> De Rudder, B.: *Grundriss einer Meteorobiologie des Menschen*, Springer, Berlin, 1938.

† This department of CALIFORNIA and WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.



changes and angina pectoris, migraine, bronchial asthma, pertussis attacks, phlyctenula, herpes corneae, acetonemic vomiting, gallstone and kidney-stone colics, paroxysms in chronic malaria, appearance of new lepra lesions, onset of paralysis in poliomyelitis, onset of mental diseases, epileptic convulsions, scarlatina, certain skin diseases, death from coronary sclerosis. Maurer<sup>3</sup> has shown that postoperative complications (thrombosis, embolism, infection) are related to front changes. Interesting results concerning the passage of fronts and their relation to the onset of labor have been published by Jacobs<sup>4</sup> (Germany) and recently by Boedeker (A. M. A. meeting, 1939).

The exact mechanism of these effects is still insufficiently clear, but there is no doubt that the vegetative nervous system plays the rôle of receptor.

The practical conclusion derived therefrom is that, before undertaking major surgery (emergencies excepted) attention should be paid to the prevailing weather and the probable receptivity of the patient so that corresponding prophylactic measures be taken. Further, prophylaxis could well be instituted to obviate exacerbations in certain illnesses.

450 Sutter Street.

PAUL G. FUERSTNER,  
San Francisco.

#### AFFINITY OF LEAD FOR VITAMIN C

Clinical and laboratory evidence that there is an elective affinity between lead ions and ascorbic acid in the human body, is currently reported by Doctor Holmes<sup>1</sup> and his colleagues of Oberlin College. Such chemical affinity would not only suggest a new theory as to the toxic action of metallic lead, but would make plausible new methods of therapeutic attack. A possible clinical connection between lead and vitamin C was suggested to the Ohio biochemists by the similarity of the gum lesions in scurvy and severe lead poisoning. A group of thirty-four cases of industrial lead poisoning was, therefore, selected for study. Seventeen members of this group were given 100 milligrams ascorbic acid daily, but no other medication. There was a marked gain in subjective symptoms in all members of this group, a prompt improvement in blood picture, and decreased excretion of lead in the urine. In one typical case, for example, urinary lead, before beginning ascorbic acid administration, was 0.5 milligram per liter. Within two weeks, excretion fell to 0.1 mg. per liter, approximately that of normal urinary excretion. With the seventeen other members of this group the previous calcium gluconate treatment was continued, but was supplemented by 100 milligrams ascorbic acid daily. This group gained in health, but not so rapidly as the seventeen patients given vitamin C alone. Test-tube experiments led to the conclusion that ascorbic acid reacts with lead ions to form a poorly ionized and, therefore, relatively inert lead-ascorbic acid

conjugate. Chemical analyses suggest that this relatively inert lead-ascorbate is excreted in the bile. The obvious conclusion drawn by the Ohio biochemists is that "men exposed to lead hazard should be advised to include in their diet plenty of such rich sources of vitamin C, as tomatoes (fresh or canned), raw cabbage, oranges or grapefruit, raw turnips, green peppers, cantaloupe, etc"; or to take 50 milligrams of ascorbic acid daily in addition to their usual diet. Detailed publication of their clinical evidence is promised for the near future.

Box 51.

W. H. MANWARING,  
Stanford University.

#### Helpful Suggestions Given for Nursing in the Home.—

Raising a patient's bed to the height of a standard hospital bed, twenty-seven inches, greatly lessens the strain on whatever member of his family may be acting as nurse, Elizabeth W. Hard, R. N., Greensville, North Carolina, advises in *Hygeia, The Health Magazine*.

This is one of her suggestions for making convalescence from a long illness as comfortable as possible for both patient and family.

"The bed can be elevated with bricks or wooden blocks placed under the legs," Miss Hard says. This not only helps the nurse but generally it is a better height for looking out of windows and in summer it is cooler.

If the patient is out of bed during the day and has difficulty getting back in a high bed, use a firmly placed chair or a child's "self help step," the author suggests.

"Sometimes covering can be a great annoyance," she points out. "If it is too heavy it is uncomfortable and over a long period might cause toe drop. Aside from a regular or home made bed cradle to hold up the weight of the bed clothes, wire clothes hangers can be useful. The bed clothes can be draped over the foot of the bed, then fastened over the bars of the hangers with snap clothes pins and the hooks fastened to the foot of the bed. This keeps the weight off the feet and yet keeps the covering in place."

If the bedrooms are not pleasant, the author advises that the patient be placed in the dining room, living room or even the kitchen. Furniture can be shifted to make this possible.

"A new outlook is highly exciting after months of seeing the world from one side," Miss Hard observes. "An adjoining room, adjacent porch or even a convenient hallway affords great relief and change if the bed can be occasionally shifted or the patient moved.

"If this is not feasible give the patient new scenes in the room. Change the pictures; place a screen near the bed and pin on it prints or magazine covers. Have growing plants in the room, anything from rye grass to sweet potato vines. But don't have too many plants or too highly scented flowers.

"A paper bag fastened to the mattress with safety pins or to the bedside table with adhesive tape can be used for discarded cleansing tissue, empty envelopes or scraps of paper or cloth if the patient is cutting or sewing."

A table reaching across the bed, with a center panel to be used as a book rest, is a great convenience. "A wooden one can easily be made, with the advantage that a narrow ledge can be added which prevents toys from falling off or books from being pushed over the edge," says Miss Hard. "It can be pushed to the foot of the bed and be out of the way, yet easily available when not in use. If the patient is allowed to sit up to eat, it can be used at meal time."

<sup>3</sup> Maurer, G.: 20th Heft d. Vortraege aus d. prakt. Chirurgie, Ferd. Enke, Stuttgart, 1938.

<sup>4</sup> Jacobs, F.: Arch. Gynaek., 159:226, 1935.

<sup>1</sup> Holmes, Harry N., Amberg, Edward J., and Campbell, Kathryn: Science, 89:322, (April 7), 1939.

## ORIGINAL ARTICLES

SULFANILAMIDE AND SULFAPYRIDIN IN  
THE TREATMENT OF VARIOUS  
INFECTIONS\*By CHESTER S. KEEFER, M. D.  
Boston, Massachusetts

## PART I

THE use of sulfanilamide and sulfapyridin in the treatment of a variety of infections has stimulated and excited tremendous interest within the past three years. Of these two drugs, sulfanilamide has had a much wider use than sulfapyridin, and we are just beginning to learn more about the value of sulfapyridin in the treatment of such infections as those due to the pneumococcus.

Today, I propose reviewing briefly our own experience with these two drugs; and since the time at my disposal is limited, I will summarize our results without presenting the details of cases. In order to synopsise the results of the use of sulfanilamide so far, I have made Table 1. This is, of

TABLE 1.—*On Use of Sulfanilamide**Diseases in Which Sulfanilamide Has a Proved Value:*

1. Streptococcic infections
2. Meningococcic infections
3. Gonococcic infections
4. Urinary tract infections due to *B. coli*, *B. influenzae*, *B. proteus*, *Staphylococcus aureus*
5. Pneumococcic meningitis
6. Experimental malaria

*Diseases in Which Sulfanilamide Is of Suggestive Value:*  
(Experience too limited or results not conclusive)

1. Undulant fever
2. Pylephlebitis suppurativa
3. Trachoma
4. Lymphogranuloma inguinale
5. Chancroid
6. Actinomycosis
7. Typhoid fever and paratyphoid fever

*Diseases in Which Sulfanilamide Is Ineffective:*

1. Subacute bacterial endocarditis
2. Staphylococcic infections
3. Rheumatic fever
4. Influencing the rash of scarlet fever
5. Preventing a recrudescence of rheumatic fever following hemolytic streptococcic infection
6. Sterilizing local foci of hemolytic streptococcic infection

*Diseases in Which Sulfanilamide Has Been Used Prophylactically:*

1. Preventing hemolytic streptococcic infection in rheumatic subjects, and in pregnant women who are about to go into labor.

course, only tentative and cannot be taken to be final, since additional experience may necessitate a change in our views, especially with reference to certain diseases.

In assessing the value of any therapeutic agent in the treatment of infectious diseases, two general

methods can be used. It can be ascertained whether the fatality rate is decreased, or it can be determined whether the total duration of the disease is shortened, the natural history of the disease changed, or complications prevented. When the fatality rate is high or the disease is self-limited in duration, then the problem is much easier than when one is dealing with a disease in which the fatality rate is low and the disease is indeterminate in duration.

Of the diseases in which there seems to be little doubt about the beneficial effects of the drug, those due to the hemolytic streptococcus, the meningococcus, the gonococcus, and certain organisms causing urinary tract infections are most important and require comment.

## STREPTOCOCCIC INFECTIONS

It now seems clear that sulfanilamide reduces the fatality rate in cases of hemolytic streptococcic bacteremia, in puerperal sepsis, and in meningitis.<sup>1</sup> It reduces the total duration of the disease process in cases of erysipelas and cellulitis, and it aids in the sterilization of empyemata due to the hemolytic streptococcus. In hemolytic streptococcic pneumonia its effect is uncertain, since there are too few cases on record to allow one to make a decision. The results in the treatment of tonsillitis and scarlet fever have been somewhat difficult to assess. The total duration of the disease does not seem to be shortened, and sulfanilamide does not affect the rash of scarlet fever. In some reports, the total number of complications in treated cases has been small, whereas in others this feature has not been so striking. When otitis media, due to the hemolytic streptococcus, is present, sulfanilamide apparently decreases the number of cases of acute mastoiditis requiring operation.

In general, the drug has been ineffective in subacute bacterial endocarditis, although there are isolated observations here and there throughout the country in which recoveries or, at least, remissions of long duration have been observed. It has also been found ineffective in preventing recrudescences of rheumatic fever following streptococcic infection, and it is of no value in the treatment of rheumatic fever.

In the prevention of sore throat in rheumatic subjects, several groups of investigators have given the drug in small daily doses for over a year, with encouraging results. It has also been recommended in the prevention of puerperal sepsis in pregnant women who are about to go into labor.

It would appear that sulfanilamide acts in these cases by (1) inhibiting the growth of the organism, (2) actually killing some strains in small numbers, and (3) prolonging life until an infection is localized, and finally destroyed, by the immune processes of the body. In order to accomplish this, it is necessary to have a high concentration (at least 7 to 10 milligrams per 100 cubic centimeters) of the drug in contact with the organisms and an active immune process.

## MENINGOCOCCIC INFECTIONS

Following the demonstration that sulfanilamide prevented death from meningococcic infection in mice,<sup>2</sup> and in view of the fact that the drug inhibited

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Guest Speaker's paper, read before a joint meeting of the sections on General Medicine and General Surgery of the California Medical Association, at the sixty-eighth annual session, Del Monte, May 1-4, 1939.



the growth of the organism *in vitro*, it has been used in a large number of cases of meningococcic meningitis in man. The results of this type of treatment have been most encouraging when used either alone or in combination with specific serum. In brief, it has been shown that the fatality rate can be reduced to between 10 and 15 per cent, the spinal fluid is often sterilized within twenty-four hours of its administration, and the total duration of the disease is shortened. Inasmuch as the drug diffuses rapidly into the cerebrospinal fluid when taken by mouth, it is unnecessary to give the drug intrathecally. It is necessary, however, to maintain the concentration of the drug in the spinal fluid in the neighborhood of 8 to 10 milligrams per cent. All samples of spinal fluid should be examined for (1) the presence of organisms, (2) the level of sulfanilamide, (3) the number of cells, and, when available, (4) the total sugar content. The drug should be given by mouth every four hours and, if necessary, by nasal catheter rather than by hypodermoclysis. If it is necessary to give it by hypodermoclysis, the drug should be given every four hours, 1 gram in 125 cubic centimeters of distilled water or salt solution. While it would be premature to say that this form of treatment is as effective as specific serum, the results so far reported indicate that this is the case. The best method to adopt for the present would seem to be the use of sulfanilamide alone at the beginning of the treatment and, if one fails to sterilize the spinal fluid within twenty-four hours, then it may be necessary to give specific serum. Lumbar punctures should be done every twelve hours until the fluid is sterile, and then every twenty-four hours until it is normal.

Cases of chronic meningococcemia will also respond in a satisfactory way to this drug.

#### GNOCOCCIC INFECTIONS

Numerous cases of gonococcic infections, including infections of the genital tract, the eyes, and the joints, have been treated with sulfanilamide with varying results. Our experience<sup>3</sup> with the use of the drug *in vitro* showed that the gonococcus was inhibited in its growth when the concentration of the drug was 5 milligrams per 100 cubic centimeters or higher. In the case of many strains the organisms were actually killed in this concentration. From clinical experience with the drug, one can say that, as far as urethritis is concerned, the cases can be divided into three main categories: (1) Those in which the urethritis is cured within a period of seven days. This represents about 50 per cent of the cases. (2) Those in which the signs of acute urethritis subside promptly but the patients continue to carry organisms in the urethra. This is a most important group, since the patient may continue to be a source of infection and cannot be pronounced cured until all the organisms disappear from the genital tract as proved by culture. (3) A group of patients whose course seems to be unaffected by the drug. In some of these patients, the drug seems to be more effective later in the course of the disease than it does in the early stages of the infection.

In the cases of arthritis,<sup>4</sup> it can be shown that infected synovial fluid can be sterilized within several days after the drug is administered, provided the concentration of sulfanilamide in the synovial fluid is 5 or more milligrams per 100 cubic centimeters. It is in this group of cases that the most striking clinical results are obtained. Less striking results may be seen in the patients with noninfected synovial fluid, but even in this group the total duration of the disease is shortened. Recurrences of the arthritis, fever, and urethritis may follow the withdrawal of the drug, so that it is well to continue its use until all signs of infection have disappeared. There is some evidence that the body defense mechanism is of importance in ridding the body of organisms.

Very striking results have been obtained in the treatment of gonococcic ophthalmia; in the few cases that I have seen the results have been most impressive. It has been found by Michels<sup>5</sup> and others that there is a rapid decrease in the edema and discharge, with a sterilization of the exudate and a great reduction of the number of days of hospitalization. In the series reported by Michels, the reduction of hospitalization from 28.5 days in a control series to 5.8 days in a treated series was very striking.

In short, it can be said that sulfanilamide is one of the most effective drugs available at present for the treatment of gonococcic infections and, while other methods of treatment are necessary in many cases, it should be given an adequate trial in all.

#### URINARY TRACT INFECTIONS

There is general agreement that urinary tract infections due to *B. coli*, *B. proteus*, *Staphylococcus aureus*, and *B. influenzae* are favorably influenced by sulfanilamide. Bliss and Long<sup>6</sup> have reported failure in infections due to Group D streptococci, and Helmholz<sup>7</sup> has not observed favorable results in those with *Streptococcus faecalis*. There is no doubt that sulfanilamide exerts a measurable bacteriostatic effect in urine and in clinical cases it has been found effective even when the urine is alkaline. As one studies these infections of the urinary tract in adults, it becomes evident that the drug inhibits the growth of organisms so that, in some cases, there is complete sterilization of the urine. In others, the organisms disappear during the administration of the drug, but reappear when it is discontinued. We have found it of value in pyelonephritis of pregnancy, in chronic bacilluria and cystitis, and in individuals with pyelonephritis without obstruction in the urinary tract. The most conspicuous results have been obtained with *B. coli* infections, and the best results are obtained when the urine contains at least 100 milligrams of free sulfanilamide per 100 cubic centimeters. This can usually be accomplished by giving 2 or 3 grams a day and restricting the output of urine to 1,500 cubic centimeters a day.

#### PNEUMOCOCCIC MENINGITIS

This highly fatal disease can be favorably influenced by sulfanilamide, especially when sulfanilamide treatment is combined with (1) the use of

specific serum given intravenously, (2) the use of repeated spinal drainage, and (3) the injection of either small amounts of specific serum or autogenous serum into the subarachnoid space.

The pneumococcus is killed by intracellular digestion. This is facilitated and accelerated in the presence of specific antiserum and complement (normal human serum). Sulfanilamide does not kill pneumococci in large numbers, but it inhibits their rate of reproduction. The rationale for the combined use of sulfanilamide, specific serum, and autogenous serum is as follows: The sulfanilamide inhibits the growth of the organisms, the specific serum provides antibody, and the autogenous serum provides antibody and complement. The reason it is necessary to inject specific serum and complement into the subarachnoid space is that antibody and complement diffuse into the subarachnoid space very slowly.

A study of the fatal cases of pneumococcic meningitis which have been treated with sulfanilamide shows that bacteremia, the presence of endocarditis or brain abscess, or injury to the brain, such as follows a fracture to the skull, all contribute to death.

The plan of treatment, as developed by Finland, Brown, and Rauh,<sup>8</sup> would appear to be the best for the present. It is the one that we have followed and may be summarized in this manner:

Sulfanilamide by mouth so that the concentration in the blood and spinal fluid is at least 10 milligrams per 100 cubic centimeters or more.

Repeated spinal drainage at least every twelve hours. All of the fluid should be drained off. Fluids should be administered freely in order to prevent dehydration and to insure a free flow of spinal fluid.

Specific antipneumococcic serum should be given intravenously to all patients with bacteremia, or to all patients who fail to show antibodies in the blood by means of slide agglutination with the same type of pneumococcus causing the meningitis.

Small amounts of antipneumococcic horse or rabbit serum (2 to 5 cubic centimeters), together with 15 to 20 cubic centimeters of fresh human serum, should be injected into the subarachnoid space daily until the spinal fluid is sterile.

Blood transfusions should be given repeatedly, especially when signs of anemia develop.

When specific antiserum is not available or the type of pneumococcus is not known, the patient's own blood serum, without added antibody, may be used, provided there is no bacteremia.

All patients with meningitis, regardless of its cause, should be started on sulfanilamide or sulfapyridin as soon as the diagnosis is made. The etiological diagnosis should then be established as quickly as possible.

It is important to use only small amounts of foreign protein intraspinally, since large amounts may be followed by a response with a thick purulent exudate.

#### PNEUMOCOCCIC PNEUMONIA

On the whole, the use of sulfanilamide in the treatment of pneumococcic pneumonia has not been very impressive. Finland and Brown,<sup>9</sup> of our clinic at the Boston City Hospital, have reported results in the treatment of Type III pneumonia with sulfanilamide or specific serum, or with a combination of these two agents. When reviewed from the point of

view of the fatality rates, the results of treatment were not very striking. There were isolated instances in which this form of treatment was followed by definite improvement, and the bacteriological and immunological studies indicated that sulfanilamide and serum can alter the course of Type III pneumonia. These observations receive support from the experiments of Enders and his associates,<sup>10</sup> who have been able to show that sulfanilamide influences in a favorable way the Type III pneumococcic skin infections in rabbits. It was found that recovery occurred when the animal survived long enough to develop specific antibodies. A recent study of the action of sulfanilamide in pneumonia due to different types has been recorded by Price and Myers,<sup>11</sup> and suggests that the drug may have a favorable effect in some cases due to other types besides Type III. They report a fatality rate of 15.7 per cent for the sulfanilamide-treated cases. When the results with sulfanilamide were compared with the results of specific serum-treated cases of Types I, II, V, VII, and VIII pneumonia, the death rate in the sulfanilamide-treated cases was 10.5 per cent, and in the serum-treated cases was 27.5 per cent. This is what might be anticipated in this small group, since the incidence of bacteremia in the serum-treated group was 30 per cent, whereas in the sulfanilamide-treated group it was only 16 per cent.

From *in vitro* experimental studies of the action of sulfanilamide on the pneumococcus with and without the addition of specific serum, it would appear that the combination of both agents would be better than either one alone. This is probably the method that should be used in the treatment of pneumonia if sulfanilamide is used.

#### SULFAPYRIDIN IN PNEUMOCOCCIC INFECTIONS

In view of the slight effect of sulfanilamide in pneumococcic infections when used alone, one of the derivatives of sulfanilamide (sulfapyridin) has been introduced for the treatment of pneumococcic pneumonia<sup>11</sup> as well as other pneumococcic infections.<sup>12</sup> This drug has received wide publicity in the lay press, so that it is well to review some of the salient points concerning its use in the treatment of pneumonia. At the outset, it can be said with some degree of confidence that the numbers of cases of pneumonia that have been treated so far are too few to afford a safe basis for any final conclusions as to the effectiveness of this drug under different conditions, or the extent of its toxic effects. The available evidence at present clearly suggests that it has a definite place in the treatment of pneumonia. Any statements that are made concerning its value, however, are purely tentative, since all of the factors influencing the fatality rate, the duration and course of the disease following sulfapyridin have not been adequately appraised.

From studies of the action of sulfapyridin *in vitro*, it has been ascertained that the drug is bacteriostatic as well as bactericidal for large numbers of pneumococci of Types I, II, III, V, VII, and VIII. To accomplish maximum results, it is desirable to use a concentration of at least 5 to 7 milligrams per 100 cubic centimeters. There are



slight differences with various specific types, depending upon the methods employed for study, the concentration of the drug, and the media that is used.

In mice infected with pneumococci at the same time that treatment is started, death is often delayed in Type III infections until the treatment is discontinued; then the animal very often dies. With Type I and Type II infections, treatment with the drug prevents death of significant numbers of animals when inocula of 10,000 to 100,000 pneumococci are used. These studies indicate that the drug has both a bacteriostatic and a bactericidal reaction on the common types of pneumococcal infections.

Before discussing the use of sulfapyridin in the treatment of pneumonia,\* one may well review some of the factors concerned in the prognosis of this disease, and also the results which can be obtained with the use of specific serum.

(To be continued)

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\* For collateral comments on the use of sulfapyridin in the treatment of pneumonia, see in this issue, on page 143, under the caption, "Sulfanilamide and Sulfapyridin in the Treatment of Various Infections."

## CONGENITAL MALFORMATIONS OF THE RECTUM AND ANUS: THEIR SURGICAL TREATMENT\*

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CONGENITAL anomalies of the anus and rectum, although not common, are of sufficient importance to justify consideration and critical review at frequent intervals. They are said to occur about once in every five thousand and six thousand newly born infants, but accurate statistics are not available. During the past four years, six such cases have been seen on the Stanford surgical service, five of them having been referred from other parts of the State.

#### EMBRYOLOGY

The embryological development pertinent to these anomalies occurs between the fifth and ninth weeks. Excellent descriptions of the normal development have been given by Arey,<sup>1</sup> Hunter,<sup>5</sup> Johnson,<sup>6</sup> Keith,<sup>7</sup> Koff,<sup>8</sup> Lewis,<sup>10</sup> Pohlman,<sup>12</sup> Stieda,<sup>13</sup> Wood-Jones<sup>15</sup> and others, but the process might be summarized as follows: In a 5-millimeter embryo the cloaca exists as a terminal sac common to the intestinal tract and the allantois. It is a rather narrow cavity compressed from side to side, and is sharply angulated ventrally. Near this ventral angle the cloaca comes in contact and fuses with the ectoderm of the body surface to form the cloacal membrane. Soon a longitudinal division of the cloaca is accomplished by the down-growth of a single, wedge-shaped mesodermic fold, called the urorectal septum, separating it into a dorsal or rectal portion and a ventral urogenital sinus. If this connective tissue septum is not complete there remains a narrow cloacal duct. Normally, however, all communication between the urogenital sinus and the intestine is closed off by the end of the seventh week. The urorectal septum also divides the cloacal membrane into two segments, a urogenital membrane and an anal membrane. Later both membranes are broken through independently, forming a urogenital and an anal opening. When the edges of the ectoderm close in the perineal region so as to form a median raphe, a permanent perineum is produced. A small inpocketing from the perineum, called the proctodeum, forms the anal pit. This inpocketing continues until the proctodeum and rectum join their lumina, forming the anus and anal canal. (Figure 1.) The external anal sphincter muscle develops from regional mesenchyma independently from the bowel.

The urogenital sinus continues its development into the bladder, urethra and the genital tract. The Muellerian ducts, one on either side of the body, are formed as paths for the products of the reproductive glands. They obtain complete development only in the female, and undergo degeneration in the male embryo. They grow downward close together in this region, and extend horizontally on the wall of the urogenital sinus, opening into it later. In both

\* Address of section chairman. Read before the Section on General Surgery of the California Medical Association, at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

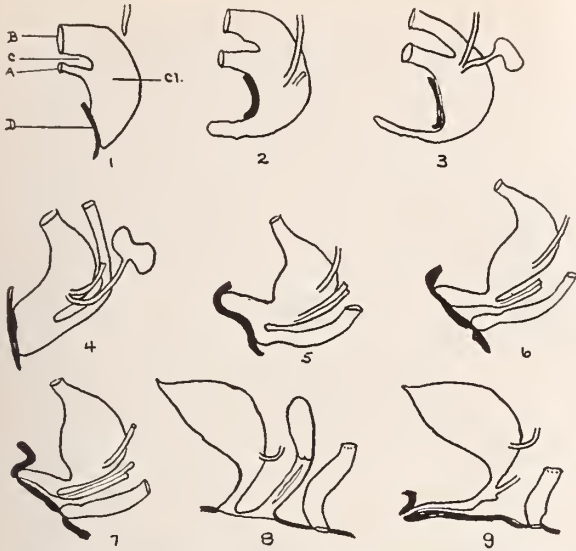


Fig. 1.—Stages in the division of the cloaca into a rectum and urogenital system, beginning in the fifth week. A, allantois; B, hind-gut; C, uro-rectal septum; Cl, cloaca; D, cloacal membrane. Sketch 8 represents the normal division in the female, sketch 9 in the male.

sexes the right and left Muellerian ducts unite to form the uterovaginal canal, which develops to completion in the female. The ducts extend downward at the expense of the posterior wall of the urogenital sinus and, finally, are separated from it so that the genital tract and urinary tract are separate.

#### TYPES OF ANOMALIES

It is apparent, from a study of the embryological development, that a congenital abnormality would exist if: (1) the anal membrane remained intact

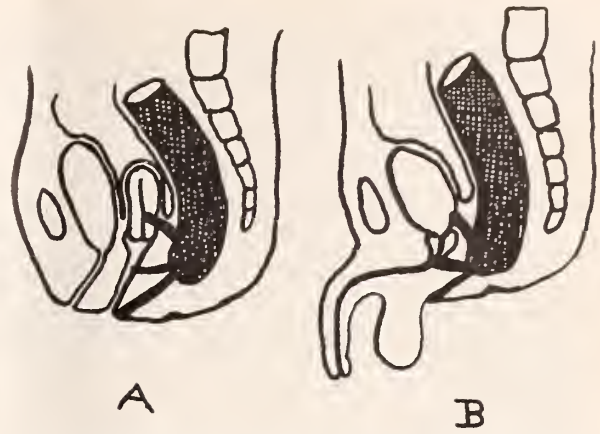


Fig. 3.—A, common types of fistulae in the female, recto-uterine, rectovaginal, recto-fossa navicularis; B, common types of fistulae in the male, rectovesical, recto-urethral, recto-perineal.

(imperforate anus), (2) the proctodeum and rectum failed to fuse (imperforate rectum), (3) this fusion was incomplete (atresia of the rectum or the anus), and (4) the proctodeum failed to develop (absence of the anus). The connection between the rectum and cloaca may be severed at practically any stage of the developmental process; therefore, the blind end of the rectal pouch may be found at any site between the recto-vesical pouch and the perineum. (Figure 2.)

A fistulous communication between the rectum and the genito-urinary apparatus would be established if the urorectal septum did not completely separate the rectum from the urogenital sinus, leaving a persistent cloacal duct. Such a fistula might open into the bladder, urethra or the perineum. In the female the down-growth of the Muellerian ducts would take over any fistulae that might be present. In such instances the fistulae would communicate between the rectum and the derivatives of the Muellerian system. In the male these congenital fistulae usually open into the membranous urethra but may communicate with the bladder or open onto the perineum. In the female they usually open into the vagina or fossa navicularis, but may open into the uterus. (Figure 3.) Fistulous openings into the bladder or urethra are extremely rare in the female. Anomalies of the anus and rectum may occur with or without fistulous communication with the urogenital tract.

Not infrequently these patients have other congenital anomalies. In this group of six cases, one had cryptorchidism, one had spina bifida occulta, one had hypospadias and spina bifida occulta, and one had calcaneo-valgus deformities of both feet.

#### PHYSICAL FINDINGS

Congenital anomalies of the anus and rectum usually are discovered during the initial or natal examination, but occasionally their presence is unsuspected until symptoms of obstruction develop. These include abdominal distension, tympanites, vomiting and sometimes visible intestinal patterns and fever. Examination of the anal region usually provides the information necessary for the diagnosis. When the anal membrane is unruptured a

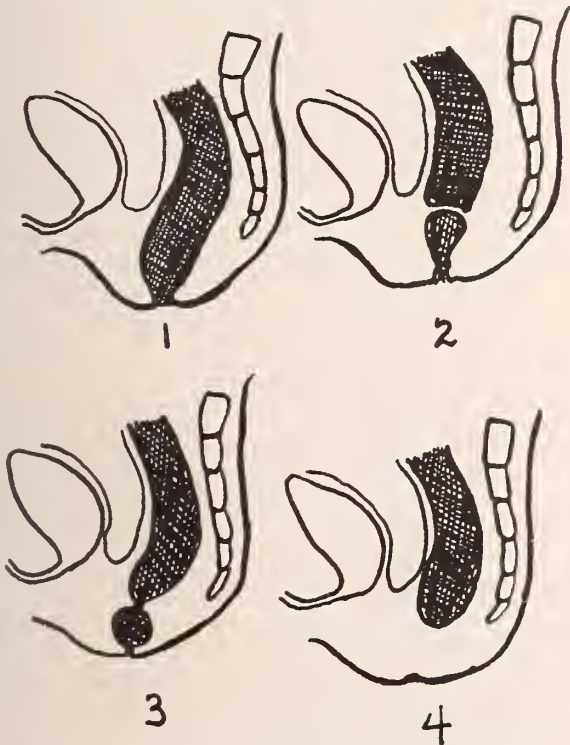


Fig. 2.—Types of anal anomalies: 1, imperforate anus; 2, imperforate rectum; 3, atresia of the rectum and anus; 4, absence of anus.





Fig. 4.—Roentgen demonstration of blind end of bowel filled with gas. Case 6.

diaphragm-like structure is found in the anal canal. The membrane usually bulges as the child strains, and there may be a dark discoloration of the membrane due to the presence of meconium on its inner surface. When the septum is at the junction of the anal canal and rectum, digital examination reveals the obstruction about 4 centimeters from the surface. The obstruction can be seen on examination with an anoscope. When the membrane in either of these types is partially ruptured the opening usually is small, perhaps 2 or 3 millimeters in diameter, and small amounts of meconium are expelled through the stenosis. Such atresias, particularly of the rectum when the anal opening is normal, may be overlooked until symptoms of obstruction appear.

In patients that have no anus there is usually a ridge in the region of the median raphe or a small dimple at the anal site. The external anal sphincter muscle should be present, but may consist of an irregular group of muscle fibers without the definite arrangement or action of a sphincter. A normally functioning sphincter muscle will pucker the skin on sharp stimulation in this region. When the blind pouch of the rectum is low in the pelvis an impulse may be imparted to the examining finger placed in the anal region while the child is crying.

Fistulae connecting the rectum with the bladder or urethra usually are discovered shortly after birth, due to the expulsion of flatus and meconium through the urethra. The same is true of fistulae communicating with the vagina or fossa navicularis.

Excellent case reports of these congenital anomalies inducing physical findings, treatment and end results have been published by Berman,<sup>2</sup> David,<sup>9</sup> Helwig,<sup>4</sup> Ladd and Gross,<sup>9</sup> Pennington,<sup>11</sup> and

others. In 1930 Wangenstein and Rice<sup>14</sup> published a practical method of determining radiologically the position of the blind end of the rectum. Gas accumulates in the small bowel shortly after birth, and is usually collected in the lower large bowel by the time the child is eighteen or twenty hours old. The infant is held head-down for a few moments, and a roentgenogram is made of the abdomen and pelvis, which shows the large bowel filled with gas. This method should not be used, therefore, until sufficient time has elapsed for gas to accumulate in the lower bowel. Figure 4 illustrates a satisfactory demonstration by x-ray of the blind rectal pouch in the pelvis. The x-ray is extremely helpful also in fistulae in the female. An opaque substance, such as barium, usually can be introduced into the fistulous opening in the vagina or fossa navicularis, thus outlining the fistulous tract and rectum. (Figure 5.)

#### TREATMENT

Treatment of congenital anomalies of the anus and rectum is surgical in nature, but obviously varies with the type of anomaly and with the age of the patient. No standardized procedure will be satisfactory for all of the various types of anomalies. However, the following general rules are usable in most cases.

In the first place, the operative procedure to be used depends on an accurate diagnosis. Complete and thorough physical examination is required, and roentgen examination with the patient in the inverted position is a valuable aid in locating the terminal end of the rectum. In the event a fistula exists between the rectum and urinary tract a cys-



Fig. 5.—Roentgen demonstration of bowel and recto-vaginal fistula. Case 3.

toscopic examination and at times pyelography may be indicated.

In instances of atresia due to a persistent membrane, simple excision of or a cruciate incision through the membrane, followed by repeated dilations of the rectum or anus, usually will suffice. In these cases a nonimpaired external sphincter always exists and the results should be good. In some cases of atresia of the rectum the blind end of the rectum is separated from the normal anal canal by a thick bridge of connective tissue. In such cases an extensive dissection may be required. Cases of this type have been reported in which the rectum has been anastomosed to the anal canal, but more frequently the rectum must be mobilized and brought out through the anal opening, and a new muco-cutaneous margin established.

Avoid abdominal colostomy during infancy, if this is at all possible. Infants do not tolerate colostomy or ileostomy well, and the mortality is abnormally high.

In instances of absence of the anus the surgical approach should be from below. It is physically possible to bring the bowel down to the perineum in 95 per cent of the cases, because the blind end of the bowel will be found caudad to the pelvic peritoneum. The incision should extend from the perineal body backward in the midline almost to the coccyx. If the fibers of the external sphincter are in an orderly arrangement, and there is clinical evidence that they possess a sphincteric action, an attempt should be made to preserve this sphincter by cutting through it only at one point, preferably posteriorly. In a large majority of cases, however,

these muscle fibers exist only as an irregular collection without useful function, and may be ignored. Dissection should be conducted in the midline posteriorly in front of the coccyx and sacrum, deliberately avoiding dissection toward the genito-urinary tract until the blind end of the bowel has been identified. The bowel should then be mobilized sufficiently to permit its approximation to the skin of the perineum without undue tension. The medial borders of the levator ani muscles should also be identified and sutured to each other in front of the rectum, and anchored to the wall of the rectum. I consider this important in order to secure bowel control in those cases without a functioning external anal sphincter.

If a genito-urinary fistula exists no attempt should be made to close it immediately after birth. It seems wiser to identify the bowel, establish a good opening in it and attack the fistula at a later date. Reported attempts at closing the fistula at the initial operation have failed in at least 50 per cent of the cases, and the mortality rate is usually high. The procedure in this series of cases has been to establish a perineal anal opening immediately after birth. After an interval of several months, provided the persistent fistula does not produce serious stricture of the urethra, an abdominal colostomy has been established before attacking the fistula, and before establishing a permanent anal opening in the perineum. After the urinary tract and the segment of bowel distal to the colostomy have been properly prepared, the rectum should be mobilized from below, the fistula excised, the rectum brought down, if possible, far enough to permit amputation at the fistulous opening into the rectum, thus avoiding any possible re-establishment of the fistula. Every effort should be made to approximate the edges of the levator ani muscles in front of the rectum, and to attach them to the rectal wall before the perineum is closed. Suprapubic cystotomy should be performed at the same operation, and a self-retaining catheter inserted into the bladder in order to prevent the passage of urine into the urethra and fistulous opening which has not been sutured. If this should happen the perineal wound will either open spontaneously or require opening, and the operation will have to be repeated at a later date. The colostomy may be closed at any convenient time after the perineum is well healed and the urinary tract functioning in a normal manner.

The anesthetic used in surgery of infants is of considerable importance. One per cent novocain solution is very satisfactory for the initial operation. If it is expected that the duration of the anesthetic will be long or in cases requiring extensive dissection, ether vapor as a general inhalation anesthetic is preferable. Infants tolerate this well if the oxygen content of the anesthesia mixture is kept high.

Each one of these cases must be evaluated separately, and the operative procedure best suited to the particular case should be employed.

#### REPORT OF CASES

CASE 1.—J. F., male, born January 5, 1937, Lane Hospital. Delivery at term, normal labor, birth weight 3,000 grams, mother gravid III, para II. Natal examination re-

type 3





Fig. 6.—Case 1, absence of anus, before operation.



Fig. 7.—Case 1, two years after operation.

vealed a normal-appearing male infant except for the perineum. A raised white median raphe extended from the base of the penis, across the scrotum, and onto the perineum, ending at a dimple in the anal region. The anus was absent, the perineum firm, but no anal sphincter could be demonstrated by pin prick. (Figure 6.) Roentgen examination with the patient upside-down showed that gas in the large bowel did not approach within two centimeters of the lead-marker on the perineum.

*Diagnosis:* Absence of anus.

*Operation:* Twenty-eight hours after birth, under ether vapor and oxygen anesthesia, a short linear incision was made in the midline through the skin and subcutaneous tissue in the area where the anus should be. The perineal muscles were separated by blunt dissection and the distended bowel located in front of the coccyx. The rectum was freed without difficulty and opened. A large quantity of meconium escaped. The bowel opening was sutured to the skin, with interrupted sutures passing through all layers of the bowel and the skin.

The postoperative convalescence was uneventful. The patient was dismissed on the seventh day, and healing was complete on the sixteenth day after operation.

The patient was seen at biweekly intervals for three months, and was last seen January 25, 1939, at the age of 2 years. He was well, had one regular bowel movement daily, and seldom soiled himself. The anus appeared practically normal, except that no anal sphincter could be demonstrated (Figure 7).

CASE 2.—E. M., male, born August 14, 1936, Stockton, California. Delivery at term, normal labor, family physician noted absence of anus at the initial examination. On the way to San Francisco the patient vomited a small amount of dark material, "which looked like blood."

Admitted to Lane Hospital the same day, twenty hours after birth. Examination on entry showed a well developed, new-born infant, temperature 39.6° C., abdomen moderately distended, scrotum large and slightly edematous, both testes present, mild hypospadias with a small urethral orifice, anus represented by a dark-colored area, slightly depressed. There was no evidence of an anal sphincter on stimulation. Palpation revealed firm resistance in this area. There was a deep dimple over the lower end of the sacrum, suggesting spina bifida occulta. Roentgen examination with the patient in the inverted position showed "the outline of the large

bowel ends abruptly 3 or 4 centimeters from the theoretical site of the anus."

*Diagnosis:* Absence of anus, hypospadias mild.

*Operation:* On August 15, 1936. Anal colostomy, 1 per cent novocain, 7 cubic centimeters as local anesthesia. A linear incision, 1.5 centimeters long, was made through the skin and subcutaneous tissue, across and posterior to the anal depression. The perineal muscles were separated in the midline, and distended bowel located in front of the junction of coccyx and sacrum. The rectum was mobilized by blunt dissection and opened. Considerable gas and meconium escaped. The full thickness of the bowel wall was sutured to the skin.

The postoperative course was uneventful, the patient dismissed from the hospital on the seventh day after operation. The patient was last seen on August 17, 1938, age 2 years, healthy and well, except for a tendency toward constipation. Mother states that he had good control of his bowels, had not soiled himself since she trained him to use the toilet. The artificial anus was well healed, of adequate size, and a small amount of rectal mucosa filled the anus when the buttocks were spread apart. (Figure 8.) There was no evidence of an external anal sphincter; but stimulation near the anus produced a forceful elevation of the entire perineum.

CASE 3.—J. T., female, born August 9, 1933, Lodi, California. Delivery was spontaneous, but several weeks premature, birth weight 4 pounds  $\frac{3}{4}$  ounces. Meconium was passed per vagina the day after birth. The family physician located the opening of a rectovaginal fistula just above the hymen, but instituted no treatment. Usually there were several bowel movements each day, but on three occasions fecal impaction occurred which required irrigations through the fistula.

The patient was admitted to Lane Hospital January 10, 1934, age 5 months. The general examination was not remarkable; the child appeared healthy, and the abdomen was not distended. No anus was present, but there was a pigmented area of dimpled skin just behind the vagina. There was no evidence of an anal sphincter on stimulation with a pin prick. Feces were passed per vagina. An irregularly shaped opening about 4 millimeters in diameter, through which pale mucous membrane pouted, was demonstrated in the posterior midline of the vagina about 1 centimeter above the hymen. Feces were discharged through this opening. Roentgen examination with barium introduced through this



Fig. 8.—Case 2, two years after operation. Excess rectal mucosa on the left. Note deep sacral depression.



Fig. 9.—Case 3, two years after operation.

fistulous opening showed a cone-shaped canal connecting with the large bowel. (Figure 5.) The fistulous opening in the vagina was dilated to the size of a 28 F. sound, and the child dismissed from the hospital with instructions to the family to dilate the fistula and report at frequent intervals. The child reentered the hospital on January 24, 1935 (age 17 months), with the complaint by the parents that she was weak, would no longer sit up, and had failed to gain weight for the past three months. She had been fed a low-residue diet, and orange and tomato juice. Examination showed poor nutrition, unusual weakness for a child of that age and a marked secondary anemia. The red blood cells numbered 3,120,000, hemoglobin 24 per cent (Sahli), color index .33. On February 2, 1935, an abdominal colostomy was performed. The anemia responded rapidly to diet and iron therapy. On March 7, 1935, a closure of the recto-vaginal fistula and establishment of a perineal anus were done under ether vapor and oxygen anesthesia. An incision 3 centimeters long was made in the midline of the perineum, from the perineal body backward towards the coccyx. The perineal muscles were separated, the bowel identified and freed posteriorly without difficulty; but it was not easy to separate the bowel from the rectovaginal septum. This was done, however; the fistulous tract cut through, the opening in the vagina closed through the vagina, the rectum brought down to the perineal incision, amputated at the site of the fistulous opening, and sutured to the skin.

The child stood the operation well, but in a few days it was evident that the bowel had not been mobilized sufficiently and was retracting.

On March 25, 1935, a second operation was performed, the bowel mobilized to a higher level, the levator ani muscles were approximated in front of the rectum and sutured to the rectum. The bowel opening again was sutured to the skin. This time the operation was successful, convalescence uncomplicated and the child left the hospital four weeks later. The parents were instructed to dilate the perineal anus at regular intervals. The family moved to Southern California and the abdominal colostomy was not closed until September, 1936, eighteen months after the successful closure of the rectovaginal fistula and establishment of a perineal anus.

When seen in March, 1938 (two years after operation), the result was good. (Figure 9.) The child had good control of bowel movements, was attending school, and had not

soiled herself except when given a cathartic. There was no evidence of an anal sphincter, but the perineum and anus could be drawn upward with considerable force on stimulation with a sharp instrument. The mother stated that the child could retain an enema with good control, expel or stop its expulsion, and knew when her bowels were to move.

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CASE 4.—C. S., male, born March 16, 1932, Biggs, California. Admitted to Lane Hospital October 1, 1937, age 5½ years. The following history was obtained from the family and their physician: The child was born at full term, spontaneous delivery, weight 9 pounds. Absence of an anal opening was discovered the day after delivery. The abdomen was distended, and gas and meconium were passed per urethra. Operation was performed by the family physician on March 18, 1932 (two days after delivery). An incision 1½ inches long was made in the midline of the perineum, the blind end of the rectum isolated, opened and sutured to the skin. The wound was healed in two weeks. A few weeks later the anal opening began to contract, became stenosed by heavy scar tissue, fecal material began passing through the urethra, and on June 1, 1932, an abdominal colostomy was done. After this, the child gained weight and in every respect seemed to develop normally, except that he never passed any urine through the urethra after the colostomy was formed. Urine had been expelled involuntarily through the distal segment of the abdominal colostomy.

Examination on entry to the hospital, October 1, 1937, revealed a well developed, fairly well nourished boy, age 5½ years. There was a double-barreled colostomy in the left lower quadrant of the abdomen. The right testis was undescended. There was a large amount of cicatricial tissue in the perineum, in the center of which was a small fistulous opening less than 2 millimeters in diameter. Intravenous pyelography showed normal functioning kidneys, ureters and bladder. Lipiodol injected into the small perineal opening demonstrated its communication with the rectum. Cystoscopic examination was done with some difficulty, due to strictures in the urethra, but a fistulous opening was demonstrated in the membranous urethra. The following diagnoses were made: abdominal colostomy, post operative; imperforate anus with perineal anostomy; recto-urethral fistula; cryptorchidism.

The urethra was dilated twice and operation performed, October 9, 1937, under nitrous oxid anesthesia. The cutaneous opening and considerable cicatrix were excised in the perineum, the bowel identified and mobilized from the front





Fig. 10.—Case 4, one year after operation.



Fig. 11.—Case 5, two months after operation.

of the coccyx and sacrum. A sound was passed through the urethra into the bladder and the recto-urethral fistula cut near its junction with the membranous urethra. The rectum was then mobilized from the prostate and base of the bladder, and delivered through the perineal incision. The excess rectal wall was excised at the site of the fistulous opening into the rectum. The levator ani muscles were approximated in front of the rectum and sutured to it, but no attempt was made to suture the opening of the fistula into the urethra. The edges of the bowel were sutured to the skin, and the remainder of the perineal incision closed with interrupted sutures. A suprapubic cystostomy was done and a self-retaining catheter placed in the bladder.

The child recovered rapidly from this operation. The new anal opening healed well. Urine was passed spontaneously through the urethra on the fourteenth day, the cystostomy wound closed on the twenty-sixth day, and the patient could control urination on the forty-third day after the operation. The strictures in the anterior urethra were dilated three times after the operation. Three months later the anal opening in the perineum was well healed, about 1 centimeter in diameter with a sharp junction between skin and mucosa. The abdominal colostomy was closed January 29, 1938, and he began having bowel movements through the anus three days later. On the twenty-fifth day after the colostomy was closed it was noted that the patient could tell when his bowels were to move. In two months he could retain or expel a tap-water enema at will, and seldom soiled himself. He was last seen April 18, 1939, fifteen months after his last operation. He had complete control of his urine; the anus was well healed without stenosis or prolapse, and he had good bowel control, although no external anal sphincter could be demonstrated. (Figure 10.)

CASE 5.—R. S., male, born October, 1937, at Watsonville, California. Full term, spontaneous delivery, first-born child, weight  $8\frac{1}{2}$  pounds. Absence of an anus was discovered after birth, and a perineal operation was done the same day by the family physician. There was no anal canal and no evidence of an anal sphincter; but the blind end of the bowel was located, opened and sutured to the skin on the perineum.

Development was uneventful for six weeks, when the mother observed the passage of fecal material per urethra. The anal opening contracted and eventually became constricted to a narrow opening, and both defecation and urination became difficult.

Admitted to Lane Hospital August 7, 1938, age 10 months. General condition was good, no abdominal abnormalities were noted, external genitalia were normal in appearance. There was a strictured artificial anus in a markedly scarred area in the perineum, the anal opening being very small. Feces and urine were passed partly through the urethra and partly through the small anal opening. Two strictures in the anterior urethra were identified. There was a deep depression over the middle of the sacrum suggesting spina bifida occulta. The diagnoses of imperforate anus and recto-urethral fistula were made. The urethral strictures were dilated several times under general anesthesia, and on August 29, 1938, an abdominal colostomy was performed. The child did well after this operation, but it was noted that urine was passed partly through the urethra and partly through the stenosed artificial anus, which had been made on the day of birth. The urethral strictures were dilated to a size 18 F. sound and a circumcision done.

The child reentered Lane Hospital February 18, 1939, and three days later the recto-urethral fistula and stenosed artificial anus were operated upon under ether vapor and oxygen anesthesia. An elliptical incision was made around the anal opening, and this incision carried backward in the midline almost to the coccyx. The perineal muscles were separated and the bowel identified and mobilized without difficulty from in front of the coccyx and sacrum. A sound was passed through the urethra into the bladder; the bowel mobilized anteriorly; the fistula, which measured nearly 1 centimeter in diameter, was cut near its opening into the membranous urethra, and the bowel freed from the prostate and base of the bladder. The mobilized rectum was delivered into the wound and excised at the fistulous opening into it. The levator ani muscles were approximated in front of the rectum and sutured to it, no attempt being made to suture the fistulous opening in the urethra. The bowel wall was sutured to the skin and the remainder of the perineal incision closed with interrupted sutures. A suprapubic

cystotomy was done, placing a self-retaining catheter in the bladder. The patient stood the operation fairly well, but was given a transfusion of 150 cubic centimeters of citrated blood. Convalescence was not remarkable. The perineal incision and new anal opening healed well, the suprapubic drainage tube was removed on the twenty-seventh day, and the cystotomy wound closed spontaneously on the thirty-eighth day after operation. At present this child still has an abdominal colostomy, but is voiding normally and the perineum is in good condition. (Figure 11.) It is planned to close the colostomy within the next month.

CASE 6.—D. D., male, born March 23, 1939, Westwood, California. Labor was spontaneous, at term, first born, birth weight 6 pounds 13 ounces.

The family physician noted the absence of an anus at the initial examination shortly after delivery, and no other abnormalities were detected at that time. However, about eighteen hours after birth flatus and meconium began passing per urethra. The genitalia otherwise were normal.

Patient entered Lane Hospital March 24, 1939, about thirty hours after birth. Examination revealed a fairly well developed, new-born infant. There was a slight icteric tint to the skin and no abnormalities of the head, neck, thorax or abdomen were noted. There was no abdominal distension. Both testes were in the scrotum. There was no anal opening, but in its place there was a shallow depression with some wrinkling of the skin around it. On stimulation by a pin-prick, a sphincteric contraction was produced. Flatus and meconium, as well as urine, were passed at frequent intervals through the urethra. There was a mild calcaneovalgus deformity of both feet.

Roentgen examination in the inverted position showed "the gas shadow in the rectum reaches within two centimeters of the lead-marked place where the anus should be." (Figure 4.) The diagnoses of congenital absence of the anus and congenital recto-urethral fistula were made. Because the intestinal content was escaping without difficulty operation was delayed several hours until the child could be fed and given fluids. Operation was performed March 25, 1939, under local anesthesia, forty-eight hours after birth. An elliptical incision, 2 centimeters long, was made around the shallow depression in the anal region. The skin over the depression was excised, revealing muscle fibers in the more or less orderly arrangement of an external sphincter, but there was no central opening in the muscle. These fibers were cut anteriorly, the muscle separated by blunt dissection, and the blind end of the moderately distended bowel identified about 3 centimeters from the skin. The rectum was mobilized posteriorly without difficulty, but no attempt was made to free it anteriorly or to treat the fistula. The rectum was brought down to the perineal incision, the sphincter muscle sutured anteriorly, the bowel opened and the edges sutured to the skin.

The patient's recovery was uneventful, and healing at the mucocutaneous margin was complete in twelve days. Stools were passed through the anal opening regularly and without difficulty, while meconium and flatus no longer were expelled per urethra. No action of an anal sphincter could be demonstrated while the patient was in the hospital. He was dismissed fifteen days after operation.

#### COMMENT

It is planned to establish an abdominal colostomy in about ten months, unless the present anal opening becomes ineffective, requiring a colostomy at an earlier date. After the abdominal colostomy is established, the rectum will be mobilized by a perineal approach, the recto-urethral fistula excised, a new and permanent anal opening made, and a suprapubic cystotomy done. A few months after this procedure has been completed satisfactorily the abdominal colostomy will be closed. This series of operative procedures, as planned, will require an elapse of about fifteen to eighteen months' time.

#### SUMMARY

The embryological processes leading to the formation of congenital anomalies of the anus and rectum are summarized. Clinically, these cases may be divided into four types: (1) imperforate anus, (2) imperforate rectum, (3) atresia of the anus or rectum, and (4) absence of the anus. Congenital fistulae from the rectum to the urinary tract in the male, or the genital tract in the female, may accompany any one of the above anomalies. The basic principles underlying the operative treatment of these anomalies are presented.

Six cases of congenital anal and rectal abnormalities are reported from the surgical service of the Stanford Medical School. All six of these cases were of type 4, *absence of the anus*, two of them without congenital fistulae, one with a fistula from the rectum to the vagina, and three with fistulae from the rectum to the membranous urethra. A normally functioning external anal sphincter was present in only one case (Case 6). Nevertheless, four of these cases have been followed for fifteen months or more since their last operative treatment. None of these four has an active external anal sphincter, yet all four have good control of their bowels, seldom, if ever, soil themselves, and for all practical purposes have normal bowel behavior. These patients seem to control their bowels by contracting the levator ani muscles, which elevates the perineum, and by voluntarily contracting their gluteal muscles. By this maneuver they are able to retain, expel or stop the expulsion of an enema or other bowel content. There is every reason to believe that this voluntary (or conditioned) control will persist throughout life; but an opportunity to observe such patients for more than a few years during infancy or childhood has not yet occurred.

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## THE PATIENT'S CONCEPT OF MATERNITY CARE AS OBTAINED FROM POPULAR SOURCES\*

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A LITTLE over three hundred years ago, in 1591, a woman of rank was burned alive on Castle Hill in Edinburgh, Scotland, because she sought relief from pains of childbirth. This incident occurred in the reign of Queen Elizabeth, when Shakespeare, Bacon, and Sir Walter Raleigh were making lasting fame, and nearly one hundred years after the discovery of America. Two and a half centuries later doctors, although denounced by the clergy, began to attempt special maternity care. In 1847 Queen Victoria's delivery under chloroform produced a storm of abuse. However, her doctor, Professor James Simpson, was later knighted for his extraordinary services. Since these events and many others, commonsense has slowly but surely prevailed; and now we have a public concept of maternity care which is a far step from that of even fifty years ago.

### POPULAR SOURCES OF INFORMATION

No small part of this advance in public knowledge is due to the influence on maternity patients of the information obtained from popular sources, such as bulletins and pamphlets from the United States Department of Labor and insurance companies, from literature issued by free clinics, and from women's and other popular magazine articles. Where formerly these topics were little discussed and the prospective mother had but little help to depend upon, her care now is the subject material of much-read magazine articles and furnishes the conversation for many an afternoon tea.

Could one learn something of the information which the prospective mother has at her command, one could more satisfactorily care for the patient—at least more satisfactorily from the patient's standpoint.

### AUTHOR'S QUESTIONNAIRE

To try to obtain some concept of the average patient's ideas concerning prenatal care and relief of labor pain, I have attempted to review the numerous recent popular articles on such subjects, and to scan the available free pamphlets, while I have obtained answers from about two hundred past patients, to the following questions:

1. From what sources do you obtain your information concerning maternity care and a choice of obstetrician?

2. Would you prefer complete loss of consciousness, or not, at childbirth?

3. What pamphlets, books, and magazine articles on obstetrics have you read?

4. What is your present understanding of "twilight sleep"?

The questionnaire answers have been quite enlightening and very interesting. They are, of course, to a considerable extent a measure of the intelligence of the individual, but have given an insight

into the knowledge of the average patient and what is influencing that knowledge.

### SOURCES OF INFORMATION

Concerning the sources of the patient's information, one finds that the prospective mother actually depends more on the advice of her young friends who have had children recently than on any other source, and on these friends largely for her choice of an obstetrician. Nurses and the family physician here have considerable influence.

Magazine articles, especially on obstetrical anesthesia, of which there have been a great number during the last two years in just the more common magazines, seem to have been widely read by the average patient, but to have been taken with interest rather than seriously as authority. When asked as to whether or not she wishes complete loss of consciousness, about 30 per cent demand complete oblivion and apparently fearing the distress of childbirth. Another 25 per cent say that giving birth to a baby is a thrilling experience, and they would like to know what is happening, at the same time desiring a reasonable relief from pain. Another 33 per cent seem to have the interests of the baby almost entirely at heart, and desire only as much anesthetic as, in the discretion of the physician, is *entirely* safe for the baby. One replied that, after nine months of waiting, she would not miss the baby's first cry—the hearing of which she thought one of life's biggest moments! Another, having had for her first and third deliveries an analgesia with nembutal and nitrous oxid, and a morphin scopolamin twilight sleep for her second, said that she much preferred the conscious analgesia. Still another greatly disliked the stupor in which she remained for about twenty-four hours after the use of morphin scopolamin.

### TWILIGHT SLEEP

The replies to the question regarding "twilight sleep" show that the average patient actually has but little technical knowledge of obstetrical anesthesia. Most seem to have the impression that this type of anesthetic is dangerous for the baby and, therefore, not satisfactory. It was described chiefly as producing complete loss of consciousness, and, in their minds, was brought about by a variety of means such as spinal anesthetic, chloroform, ether, rectal anesthesia, gas, and only to a very few by hypodermic opiates. Evidently the average patient has little idea of the drugs used when she is talking of her friends, or of herself as having had "twilight sleep."

### WIDE VARIETY OF ARTICLES ON MATERNAL CARE

There has been such a variety of articles on maternity care in popular magazines that it is extremely difficult to determine what effect they are having. Most articles, especially on anesthesia, seem to have been scientifically unsound, misrepresenting the facts, and as a result have to some extent made it difficult for the average practicing physician to treat his patient in the best interests of her health and the health of her unborn child. At the American Medical Association sessions in Kansas City the obstetrical section was greatly stirred in its discussion of the popular magazine article.

\* Chairman's address. Read before the Section on Obstetrics and Gynecology of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

Dr. B. G. Hamilton of Kansas City made the statement that "American obstetrics seems to be becoming a competitive practice to please American women in accordance with what they read in lay magazines." At the same meeting, Dr. Rudolph Holmes declared that he wished he had not introduced "twilight sleep" into this country from Germany, stating that it was first brought to our American women unscientifically through the enterprise of *McClure's* magazine, and since has been used too much on patients, who have virtually demanded it, by those unskilled with it.

The series of highly emotional articles by Paul De Kruif, running in *The Ladies' Home Journal*, have, I believe, engendered more harmful fear in the minds of women than they have produced good from the danger of sepsis point of view. Another sensational magazine article alluded to the pain and dangers of childbirth, and went so far as to advocate cesarean section as the only humane method of delivery. Another writer maintained that the pains of childbirth are largely psychological, and little or no anesthesia is either safe or necessary. It is not illogical to assume that the conditions of the mind affect the muscles at childbirth, and it is therefore the opportunity of the obstetrician to banish fear from his patients during his association with them in their prenatal care. It is estimated that two out of three normal births in the United States today are accomplished without the aid of any form of pain killer; in fact, a quarter of a million women were delivered last year without the advantage of any physician's care. I feel sure, however, that most physicians would concede that childbirth is the most painful experience endured by human beings, and would like to see the public taught that semianesthesia is still a perfectly reasonable and safe obstetrical help. There are many articles, such as those recently running in *Good Housekeeping*, which instruct their reader to this point of view. These consistently maintain that it is a mistake to say that childbirth can always be painless, but at the same time they set forth the advantages and possibilities of taking the pain and agony from childbirth.

Many magazines are rendering a valuable service in teaching their readers to recognize and demand better obstetrical care. This recognition is one of the great reasons for the hope of fewer deaths. It cannot be denied that the problem is too wide to be left entirely to the chance handling of the individual woman by the individual average physician. Community education, be it by nonmedical magazines or not, can and is being of value in teaching public health.

#### OTHER EDUCATIONAL AGENCIES

The program of the American Congress on Obstetrics and Gynecology should go far to educate physicians and nurses, and surely the public should commend the doctors in such efforts. Possibly some of us are not familiar with the Wagner Bill for the National Health Program. It is really an amendment to the Social Security Act. Only a small portion of the scope of the bill is the section on maternal and child health service. It proposes to spend some eight millions in 1940, twenty millions

in 1941, and thirty-five millions in 1942 in promoting the health of mothers and children. The details of this program are too intricate to discuss, but whatever we may think of such legislation there is certain to be an extensive program of public obstetrical education immediately before us.

#### EVALUATION OF ARTICLES IN POPULAR MAGAZINES

Edwin F. Daily, M. D., the director of the Maternal and Child Health Division of the United States Department of Labor, expressed the opinion, in a letter regarding the United States Government maternity service, that popular magazine articles are mostly unscientific and misrepresent the facts, but that the free literature distributed by women's magazines, insurance companies, and Government bulletins are considerably responsible for a gradually decreasing death rate at childbirth. Certainly, this latter type of literature is doing much to influence the patient's concept of good care, and aids the private physician who may be backward or lax in his work to better his standards. A collection such as I have made of this literature impresses one with its high quality and thoroughness, and especially with its enormous distribution. The United States Government pamphlet, "Prenatal Care," alone has had a distribution of ten million copies. Next in popularity come the pamphlets of the Metropolitan Life Insurance Company. Thirty-four thousand copies of its booklet, "The Expectant Mother," was distributed during last year in only our seven Pacific Coast States.

All literature of this sort furnishes considerable good advertising for the obstetrician, and does much in keeping the average patient in closer touch with, rather than keeping her away, from her doctor, as some have claimed. Practically all sources of information encourage hospital care, but at the same time give valuable assistance in preparation for a home delivery. I find that at least two-thirds of my patients are sending for and reading the Government bulletin in spite of the rather complete booklet with which I supply them.

#### GOVERNMENTAL BULLETINS

The Government bulletin instructions are thorough and of high caliber. Edwin F. Daily, M. D., is the director of the Child Hygiene Division by which they are published. He is a graduate of the Colorado Medical School, and a member of the Illinois Medical Society and the American Medical Association. During 1938 alone there were 218,638 copies of the pamphlet, "Prenatal Care," just referred to and distributed at Government expense.

#### OTHER MEDIA

The *Good Housekeeping* has Josephine Hemenway Kenyon, M. D., as director of its so-called Health and Happiness Club. Doctor Kenyon is a graduate of Johns Hopkins and a member of the American Medical Association, and without doubt is qualified to edit the literature of this magazine.

The *Ladies' Home Journal* uses the bulletin, "Getting Ready for Motherhood," by Dr. Herman Bundeson, President of the Chicago Health Department. Doctor Bundeson makes the statement that the advice given in this booklet is not his, but



the combined opinions of many of the country's leading obstetricians. Since it was first offered to the public in July, 1938, there have been 2,700 copies supplied through that publication. In addition to the booklet, this service answers many letters a year in response to requests for special information.

The Metropolitan Life Insurance Company issues a forty-three page booklet, "Information for Expectant Mothers." They say that it has been compiled from the extensive literature of the United States Department of Labor and of the New York Maternity Center, and from pamphlets of the National Public Health Nursing Organization; and, although gathered by laymen, is authoritative in every detail. They feel that, in addition to helping the general program of public health, it saves them money in the conservation of lives.

The Prudential Insurance Company makes use of Doctor Bundeson's booklet in much the same way.

The free, or part-free clinics of larger cities are doing much to educate the charity patient. The Los Angeles Health Department's charity division last year cared for eighty home cases and three hundred hospital cases. In addition to well-organized literature, they are now instructing the patients by a series of moving pictures at the free clinics.

#### IN CONCLUSION

Certainly, all this instruction by laymen is doing much toward creating a higher standard of maternity care. It is valuable to the patient and, indirectly, to her doctor. It keeps the average physician aware of, and awake to his responsibility. We, as doctors, rather than make light of such popular literature, should encourage the public use of the materials at their command. It behooves us, in a way, to educate our patients during the period they are in our care. We should take time to learn as much as possible of each patient's personal psychology, and determine her likes and dislikes; to consider her demands for anesthesia, to learn her hopes and fears and, above all, to completely gain her confidence and dispel her fears. She should be treated not as just another case, but as the individual personality which she is.

3770 Twelfth Street.

### THE PRESENT STATUS OF ARTIFICIAL FEVER IN THE TREATMENT OF SYPHILIS\*

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ARTIFICIAL-FEVER therapy has been employed in the treatment of syphilis for over twenty years. During this period much has been done to evaluate its place in the management of the patient with this disease. While the beneficial effects of artificial-fever therapy are frequently striking, we have learned that it is not a panacea, and must

be regarded simply as an addition to our armamentarium for use only under certain conditions. The limitations and hazards of this form of therapy have been pointed out very clearly. The purpose of this paper is to discuss the indications for artificial-fever therapy in the treatment of syphilis.

#### ARTIFICIAL-FEVER THERAPY

Artificial fever may be induced by any one of the following methods: the introduction into the patient of a parasitic disease which is usually accompanied by fever, such as malaria; the injection of a foreign protein; injections of chemical substances such as sulphur; electrical means such as the administration of diathermy or radiotherapy, or placing the patient in an electromagnetic field; and simple immersion of the individual in a hot bath, placing him in a heat cabinet, or wrapping him in blankets and adding an external source of heat.

There has been a tendency recently to employ the simpler methods for inducing artificial fever. Malaria is still the method of choice where a biologic method is used, and some form of radiant heat is preferred when a mechanical method is employed.

The value of each of the methods is undeniable, and each has its special indications. I have been more interested in mechanical methods because there is need for a form of artificial-fever therapy for the ambulatory patient. To meet this need we have developed a simple plan called the blanket method, which has been described in detail elsewhere.<sup>1,2</sup> We have found little difficulty in producing and controlling artificial fever by this method, but it requires an experienced staff and a well-equipped hospital. Artificial-fever therapy should be administered only in a hospital, and only with due consideration of its dangers. Under these conditions, the hazards of artificial-fever therapy are reduced to a minimum. During the past five years, we have given over three thousand such treatments. One death occurred in a very badly deteriorated paretic. The reader is referred to previous publications<sup>1,2</sup> concerning the indications, contraindications, hazards, and technique of inducing artificial fever.

#### RATIONALE OF ARTIFICIAL-FEVER THERAPY IN SYPHILIS

For centuries, heat has been used in various ways for the cure of disease and the alleviation of suffering. As in the case of many other medical discoveries, clinical experience preceded scientific explanation. Von Jauregg,<sup>3</sup> because he noted that patients insane with general paralysis occasionally became sane after some febrile episode, attempted to induce fever in his patients with similar conditions. After trying to produce fever artificially by many methods, he finally chose malaria as the most satisfactory. In 1918 he showed that artificially induced malaria for treatment of paresis produced beneficial results which were at times astonishing. Later, it was shown that comparable therapeutic results could be obtained by various other methods for inducing artificial fever, provided the temperature was elevated to a certain height and maintained at that height for a sufficient length of time. It became apparent to most workers that the essential factor in this form of therapy was

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the elevation of temperature rather than the method by which it was produced.

The beneficial effects of artificial-fever therapy may result either from injury or destruction of the infecting parasite, or from increased resistance of the host against the parasite. It is probable that the various methods differ in the degree to which they produce these effects. It is interesting to note that artificial-fever therapy has been of value primarily in two infections, namely, syphilis and gonorrhea. In both of these diseases the infecting organisms are pathogenic only to the human host. When placed in an environment outside the body, they are easily destroyed. Another common characteristic of these two diseases is that they are usually afebrile. These facts indicate that the organisms may be more vulnerable to sudden changes within the host's body. A rapid elevation of temperature creates an environment which is not suited for the growth of these parasites.

Carpenter, Boak, and Warren<sup>4</sup> demonstrated that the thermal death point of *Treponema pallidum* *in vitro* was 42 degrees C. (106.7 degrees F.) maintained for one hour; 41 degrees C. (105.8 degrees F.) for two hours; 40 degrees C. (104 degrees F.) for three hours; and 39 degrees C. (102.2 degrees F.) for five hours. Other workers have shown that experimental animals can be protected against successful inoculation with *Treponema pallidum*, and that syphilitic lesions can be sterilized of *Treponema pallidum* and caused to involute rapidly by elevating body temperature of the animals to heights within limits that can be attained safely in man. Bessemans and Thiry<sup>5</sup> demonstrated that, in human tissues, *Treponema pallidum* in primary and secondary syphilitic lesions can be rendered immotile and avirulent if the tissues are raised to a temperature of 42 degrees C. (106.7 degrees F.) for one hour, or 40 degrees C. (104 degrees F.) for two hours.

It is quite evident from *in vitro* studies, animal experimentation and studies on human tissues, that the *Treponema pallidum* can be either destroyed or markedly affected by temperatures between 40 degrees C. (104 degrees F.) and 42 degrees C. (106.7 degrees F.).

In addition to the direct effect of heat upon these organisms, artificial fever probably plays some part in stimulating tissue resistance.

#### ARTIFICIAL FEVER IN THE TREATMENT OF EARLY SYPHILIS

Inasmuch as temperatures that can be safely induced in man have such a profound effect upon *Treponema pallidum*, it is natural to ask, why not use this form of therapy in early syphilis and sterilize the individual of his parasites quickly? Considerable work has been done in the treatment of the early phase of syphilis with artificial fever, but the results have been unsatisfactory. Kerl,<sup>6</sup> between the years 1925 and 1929, observed 1,600 cases of early syphilis treated with short courses of arsphenamin and bismuth, combined with malarial therapy. He concluded that malarial therapy in early syphilis was of little curative value. Artificial fever produced by mechanical methods, when

given alone, has failed uniformly in the treatment of early syphilis.

In 1935, we (Epstein and Cohen<sup>2</sup>) subjected thirty-three patients with primary and secondary syphilis to artificial-fever therapy without any other treatment. Although in 94 per cent of these cases the darkfield examinations were rendered negative and the lesions healed promptly with artificial fever, yet there was no evidence that the infection had been completely eradicated. In three patients there was recurrence promptly following cessation of the fever therapy, and in no patient was a positive blood Wassermann rendered negative.

At present, considerable experimental work is being done combining artificial fever produced mechanically with short courses of neoarsphenamin and bismuth. This procedure is highly experimental, and to me does not seem to offer a solution to the problem of early syphilis.

Probably the most important reason why fever therapy has failed to cure early syphilis lies in the fact that the human tissues do not heat up uniformly when subjected to artificial fever or during fevers of natural origin. Sampson<sup>7</sup> showed that during states of artificial fever there was a considerable variation between the temperature of the oral and rectal regions, as compared with the temperature of the venous blood, the subcutaneous tissues, the muscles, and the skin. The temperature of the venous blood remains 1 to 2 degrees centigrade below the oral temperature, and the temperature of the subcutaneous tissues and the exposed skin is also lower. Our inability to raise the temperature of all the tissues of the body to the thermal death point of the *Treponema pallidum* probably accounts for the failure of artificial fever to cure early syphilis.

#### ARTIFICIAL FEVER IN THE TREATMENT OF LATE SYPHILIS

At the present time, artificial-fever therapy, as applied to syphilis, has proved of definite value only in the treatment of the various forms of neurosyphilis. We have found it of little benefit in the management of patients with early syphilis, "Wassermann-fast" latent syphilis, and in the many other varieties of late syphilis. Artificial fever is limited in its use to the treatment of neurosyphilis, but never should be used as the only method of attack. In the treatment of resistant syphilis of the central nervous system, we should not depend upon any one method of therapy, but should be prepared to use every therapeutic agent at our command, according to the indications of the particular case. When artificial fever is induced by physical means, chemotherapy should be continued simultaneously with the fever therapy. Drug therapy should be given intensively and adequately, and in undiminished dosage. When artificial fever is induced by malarial inoculation, chemotherapy should follow the termination of the malarial paroxysms.

The results that one might expect to obtain in the treatment of the clinical forms of neurosyphilis are dependent not alone upon the therapeutic procedures applied, but also to a large extent upon the type of neurosyphilis being treated and the extent



of the damage that has been produced by the disease before therapy is instituted. It is well known that the meningovascular types of neurosyphilis respond very well to therapy. When treating the degenerative forms of neurosyphilis, such as paresis, taboparesis, and tabes dorsalis, the therapeutic response is frequently dependent upon the degree of degeneration present. Regardless of the method of therapy used, we would not expect to benefit the markedly deteriorated paretic; while, on the other hand, brilliant results may be obtained in the early paretic with a minimal amount of destruction of his cerebral cortex. In judging a given method it is very important, therefore, that these factors be considered carefully.

Artificial fever is indicated primarily for the treatment of general paresis and taboparesis. In these forms of neurosyphilis it should be instituted as soon as possible. In many cases this type of therapy is almost an emergency procedure as the degenerative process may progress rapidly.

We consider a course of pyrotherapy to consist of a total of fifty hours of fever, the temperature being maintained between 40 degrees C. (104 degrees F.) and 40.5 degrees C. (105 degrees F.). Ten weekly treatments are given, each consisting of five hours of maximum temperature. It is frequently necessary to give repeated courses of fever after six-month to yearly intervals.

In tabes dorsalis, artificial fever should be employed when the condition has not responded well to chemotherapy. It should be used when lightning pains or crises have been intractable. It is occasionally of value in the progressive optic atrophy of tabes.

Fever therapy is indicated in all other forms of neurosyphilis that prove resistant to drug therapy. In meningovascular, in diffuse cerebrospinal, and in asymptomatic neurosyphilis, fever therapy should be used only after drug therapy has been given an adequate trial.

#### RESULTS OF TREATMENT OF NEUROSYPHILIS WITH FEVER THERAPY

For several years we have combined fever therapy with drug administration, according to the indications given above, in our ambulatory clinic and private practice. In 1938, I reported the therapeutic results obtained in eighty-seven such patients.<sup>8</sup> The various forms of neurosyphilis were represented in the group. The clinical and serologic response was very satisfactory and compared favorably with those from other methods of fever therapy. A brief summary of the findings is as follows:

There were 17 cases of general paresis, 17 of taboparesis, 23 of tabes dorsalis, 20 of asymptomatic neurosyphilis, and 10 of acute meningovascular neurosyphilis.

The entire group had been under observation for an average of 37.7 months, 19.7 months before fever therapy, and 18.0 months after fever therapy.

Drug therapy, given throughout the period of observation, consisted mainly of the use of bismuth salicylate, neoarsphenamin, and tryparsamid.

*General Paresis.*—The spinal fluid Wassermann either reversed to negative or became less positive in 76.4 per cent of the seventeen cases with general paresis. The colloidal gold curve became normal or improved in 76.4 per cent.

In general, the clinical response paralleled the serologic findings. Seven patients obtained complete clinical remission, five were moderately improved, three showed slight improvement, and two no improvement.

*Taboparesis.*—The seventeen patients with taboparesis did not respond as well as did the group with general paresis. In 52.9 per cent, the spinal fluid Wassermann either reversed to negative or became less positive. The colloidal gold curve became normal in 11.8 per cent and improved in 70.5 per cent. In eight patients the clinical results were excellent, in eight moderate or slight improvement was noted, and one showed no improvement.

*Tabes Dorsalis.*—The spinal fluid Wassermann reversed to negative in 73.9 per cent of the twenty-three cases, and became less positive in 4.3 per cent. The colloidal gold curve became normal or improved in 60.2 per cent. The clinical effects did not parallel the serologic response, although many of these patients experienced considerable relief from their symptoms.

*Asymptomatic Neurosyphilis.*—In the twenty cases with this form of neurosyphilis, the spinal fluid Wassermann reversed to negative, and the colloidal gold curve became normal in 70 per cent and improved in 15 per cent. These findings are more significant because this group of patients had had an average of one and one-half years of drug therapy before fever therapy had been given.

*Meningovascular Neurosyphilis.*—There were ten cases in this group. The spinal fluid Wassermann reversed to negative or became less positive in 70 per cent, while the colloidal gold curve either became normal or improved in 90 per cent.

#### COMMENT

It was noted that, in the entire series of cases, the cell count was the most easily influenced element in the spinal fluid, becoming normal in 95 per cent.

The protein content of the spinal fluid was reduced to normal or improved in 74 per cent of the series.

Further observation of this group of patients and others will be necessary in order to confirm or modify the serologic and clinical results obtained. At present they are encouraging and indicate that this method of approach to the problem of the treatment of neurosyphilis is very satisfactory.

#### SUMMARY AND CONCLUSIONS

Artificial-fever therapy has a definite place in the management of the patient with neurosyphilis. It is of particular value in paresis and taboparesis, and is a helpful adjunct in the treatment of other forms of neurosyphilis that prove resistant to drug therapy. Our experience in the group of patients with asymptomatic neurosyphilis indicates that fever therapy may be of considerable value in preventing progression of the disease before late lesions appear.

Up to the present time, artificial-fever therapy without other therapy has been found to be unsatisfactory in the treatment of early syphilis. Certain investigative work is being conducted, combining artificial fever with drug therapy for cases of early syphilis. The value of this procedure has not been established.

We have found pyrotherapy unsatisfactory in the treatment of "Wassermann-fast" latent syphilis, and of all forms of late syphilis other than neurosyphilis.

The technical difficulties and hazards of inducing artificial fever have been eliminated to a large extent. This form of therapy should, however, be carefully controlled, and should be administered only by a thoroughly trained personnel and in an adequately equipped hospital.

The theoretical aspects of the rationale of artificial-fever therapy in syphilis have been discussed.

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### SANTIAGO RAMÓN Y CAJAL\*

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ALMOST a century ago there arose from the common people of Spain a character of such outstanding proportions and versatility as to warrant a place in history with Cervantes, Velasquez and Calderón de la Barca.

Santiago Ramón y Cajal was born at Petilla, in Aragon, on May 1, 1852. His father was a conscientious, ambitious, enterprising man who was not content to remain a "surgeon of the second class," and so, by dint of hard work and economies, he completed the course in medicine while burdened with an increasing family. From him Cajal inher-

ited his physical and mental characteristics, including a will to power, determination, ambition and a splendid memory. Cajal's mother was a woman of fine character and great beauty. It was Cajal's regret that she did not transmit her physical characteristics to any of her children.

#### BOYHOOD DAYS

Like the majority of youngsters brought up in the country, Cajal was an outdoor enthusiast who, though shy, delighted in pranks. At an early age he began to collect birds and birds' eggs. Playing at war, he developed a science of ballistics, and even wrote a small treatise on lapidary strategy.

Formal education for Cajal began at 4 years of age. By 7 or 8 he was manifesting unusual interest and appreciable talent in both drawing and painting with water colors, to the disgust and dismay of his father, who wished that nothing might interfere with the classical education he had planned for him in preparation for a medical career. Before Cajal was 8 he was profoundly impressed by the return of Spanish troops from victories in Africa; and at that early age the germ of a sense of patriotism was awakened in him. A stroke of lightning, which killed a priest while he was ringing a bell in a belfry, seriously disturbed his faith in the working of a divine providence. On the other hand, he was greatly moved by an eclipse, which had been predicted by men who could not control lightning.

Life for Cajal, when between 10 and 13 years of age, was stormy. Bored by memorizing Latin and Greek, his obstinacy and defiance led to floggings. On one occasion he was deprived of a part of his food for five months and became greatly emaciated. In order to provide his son with a trade, if not a profession, his father, in desperation, apprenticed him to a barber. Cajal made friends in this environment. By writing poetry, for the barber's assistant, to a servant girl, he obtained music lessons. For music, however, he had no talent and made little progress. When he was apprenticed at a later date to a shoemaker, he soon became so adept that he was entrusted with work of the most fastidious nature. On being permitted to return to school, he resumed drawing, at which he excelled. This led to a very embarrassing incident when he caricatured a prominent teacher, whose injured egotism would not be soothed.

#### YOUNG MANHOOD

At 16 years of age Cajal's interest in photography was awakened. He was "astonished unspeakably" by manipulations for the production of a photogenic layer on wet collodion, and "stupefied" by the development of the latent image by pyrogallie acid. Later, he made important contributions to this art, including a work on color photography.

At 17 Cajal began the study of osteology. Bones for study were procured by father and son after dark from the local cemetery. Great was his parent's amazement and joy when his child manifested interest of high degree, a proficiency in drawing pictures of bones from all angles, and an astounding memory for anatomic details. For the ensuing

\* Address of Section Chairman. Read before the Section on Neuropsychiatry of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.



three years Cajal dissected in Zaragoza. During that period his attitude toward anatomy may be gleaned from his statement: "Henceforth, I saw in the cadaver, not death, with its train of gloomy suggestions, but the marvelous workmanship of it." At the end of his second year in medicine he was granted an appointment as assistant in dissection; and this enabled him to earn fees by giving lessons in practical anatomy. Subsequently, and attentively, he studied chiefly anatomy and physiology, while to the remaining subjects of the curriculum he devoted only enough effort to obtain passing grades. In June, 1873, at 21 years of age, he was granted the title Licentiate in Medicine.

Adhering to a plan of always having avocations, Cajal, at different times during his medical training, developed graphomania, a mania for philosophy as well as for gymnastics. Two hours of application daily to a series of exercises, some of which he improvised, served to make him a champion strong man. Of himself at that time he says: "When I walked, I showed that inelegance and rhythmic strut characteristic of the sideshow Hercules."

Caught in the military draft of Castelar, Cajal, on obtaining his medical degree, became an assistant physician in the army. In 1874 he was promoted to a captaincy and ordered to Cuba. Though he resisted the "four great vices of officialdom, tobacco, gin, gambling and women," he contracted malaria, which was followed by dysentery. After great hardship, suffering and disillusionment, he returned home at about 24 years of age.

#### TEACHING CAREER BEGINS

Showing little interest in clinical medicine, he was urged to go into teaching. During 1876 he studied anatomy and embryology, and assisted his father at the hospital. On April 28, 1877, he was made auxiliary professor on the Faculty of Medicine at Zaragoza. Further aspirations toward a teaching career obliged him to take an academic degree. At the time he took his first examination in Madrid he had never seen histologic preparations made, "nor was I capable," he said, "of carrying out the simplest microscopic examination."

At Zaragoza he managed to secure the use of the only microscope in the university, property of the department of physics. His love of microscopy was inflamed by "the amazing spectacle of the circulation of the blood." Later he purchased a microscope on the installment plan and set up a laboratory for microtechnique. He started working alone with the aid of the French versions of Henle's "General Anatomy" and Frey's "Histology and Histochemistry." He failed to pass the examinations for the chair of descriptive and general anatomy at Zaragoza, for lack of experience in speaking "before select and critical audiences" and because of "absence of pedantry." For lack of influence, he failed to obtain a similar chair at Granada. Following examination in 1879 he was appointed Director of Anatomical Museums in the Faculty of Medicine at Zaragoza, and afterward he wrote that he "owed eternal gratitude" to this appointment, which saved him from becoming a practicing physician.

While playing chess (at which he excelled), Cajal, one day in 1878, developed a pulmonary hemorrhage. His father made a diagnosis of pulmonary tuberculosis, and prescribed rest in bed, and for a time the son was very depressed. During his convalescence, he diverted himself with photography, became a manufacturer of gelatin bromide plates, and improved certain current formulas. And, against the advice of his family and friends, in 1879 he married a charming woman, whose psychology complemented his own.

#### LABORATORY INVESTIGATIONS

While director of the Anatomical Museum in Zaragoza, Cajal set up a laboratory for teaching and investigative work. His first publication was brought out in 1880. About that time he procured the leading current monographs on histology and devoted himself to studies of nervous tissue, using staining methods dependent upon silver nitrate. In 1883 he won the chair of anatomy at Valencia; and there, in 1885, he was temporarily diverted into bacteriology by the cholera epidemic. In appreciation of his work, the provincial government presented him with a Zeiss microscope. He was astonished to observe that microscopic demonstrations aroused no interest in his colleagues, who spent their time arguing and describing healthy and diseased cells without trying to see them. About that time L. Simarro, a psychiatrist and neurologist of Valencia, showed Cajal the first good preparations of nervous tissue made by Golgi's method. In 1887 Cajal himself began making Golgi preparations on a large scale.

#### NERVE TISSUE STUDIES

Appointed that year to the chair of anatomy at Barcelona, he joined a circle at a café where he met writers, politicians and men of affairs. His enthusiasm for original investigation and the intellectual renaissance of Spain increased. By 1888 Cajal was able to formulate the laws governing the morphology and connections of the nerve cells in the gray matter; and he showed that the collateral and terminal ramifications of every axis cylinder end in the gray matter by free arborizations which are applied very closely to the bodies and the dendrites of the nerve cells. Demonstration of these facts enabled him to state that the cell bodies and their processes enter into the chain of conduction, contrary to the opinion of Golgi, who felt these parts of the cells perform only a nutritive rôle. The view that the nerve impulse is transmitted by contact became inescapable since the continuity of substance between cell and cell had been excluded.

#### SILVER STAINS

Cajal then turned to the ontogenetic or embryological method, using silver stains on tissues that had not yet become myelinated. By this method cells were made to stand out complete in each section, and constant results, impossible of attainment in adult forms, became the rule. After his success with the retina and cerebellum, Cajal turned to the spinal cord, and eventually all portions of the nervous system were subjected to critical scrutiny.

Before the Anatomical Society of Germany, which met at Berlin in October, 1889, Cajal demonstrated his preparations. They were viewed with skepticism, until Kölliker became so impressed as to turn the tide in his favor. At Berlin, too, he had the opportunity to make the acquaintance of the leaders of anatomical thought in Europe. On his return trip he met Krause, who had befriended him years previously by publishing several of his communications.

#### HIS CAPACITY FOR WORK

By the time he arrived home he had become impressed with the lack of equipment even in German centers of research, and had decided that "cultural superiority depends not on the educational institutions, but upon the men." Finding "the emotion of discovery so sweet and comforting, so gently caressing to vanity and pride," he began working from 9 a. m. until midnight. His outstanding contribution of 1890 was the establishment of the genetic unity of the nerve fibers and of the dendrites. He described, for the first time, the growth-cone, a concentration of protoplasm of conical form endowed with ameboid movements at the end of the axons of chicks three days old. By 1891 he had brought out the theory of dynamic polarization. "The transmission of the nervous impulse is always from the dendritic branches and the cell body to the axon or functional process."

In 1897, realizing that the cell body does not always take part in the conduction of the nerve, he enunciated the theory of axipetal polarization, a modification of dynamic polarization. This assumes that the cell body and the dendrites transmit waves of nervous excitation toward the axon and inversely that the axon or axis cylinder carries the impulses received by the body or dendrites toward the terminal arborizations of the nerve fiber.

In April, 1892, at the age of 40 years, Cajal became Professor of Normal Histology and Pathological Anatomy at Madrid. At first he frequented the tertulia, or social club, in the Café de Levante, composed of army surgeons he had known in Cuba. He soon tired of their uninteresting conversation, however, and joined that of the Café Suizo. From these associations arose his famous "Charlas De Café." Meanwhile research was continued with unabated energy.

#### ADDRESSES ABROAD

In February, 1894, Cajal was tendered an invitation to deliver the Croonian Lecture of the Royal Society of London. He was moved to admiration of the great English institutions of learning, which he felt were admirably organized for the production of men, but not for the formation of scholars. In the same year, before the International Medical Congress at Rome, he discussed the morphology of the nerve cell. In this discussion he brought out the conclusion that intellectual power depends not on the size or number of the cerebral neurones, but on the richness of their connection processes; or, in other words, on the complexity of the association pathways to short and long distances.

Cajal was greatly depressed by the Spanish-American War, and when Clark University, at its decennial celebration in 1899, invited him to give three lectures on his work he was "surprised and perplexed." Yielding to the unanimous opinion of the government, the political press and his friends, however, he accepted the invitation and crossed the ocean to the United States. Here, almost suffocated by the heat of New York and Worcester in June and July, he was moved, by the sight of men doing manual labor in the direct rays of the sun, to exclaim: "Oh, the steely fiber of the Anglo-Saxon race." Harvard University roused his sincere admiration. On this trip, he met and enjoyed the company of Adolf Meyer.

#### REWARDS AND PRIZES

The International Medical Congress, which assembled in Paris in 1900, awarded him the international or Moscow award of 6,000 francs for the most important medical or biological work published in the triennium between meetings, and thenceforth honors were showered on Cajal. The Spanish government appropriated 80,000 pesetas for an institute of scientific research, which was opened under the name, Laboratorio de Investigaciones Biológicas. As director, Cajal was offered an annual salary of 10,000 pesetas, which, in his modesty, he refused, considering it excessive.

In 1904 Cajal completed his great work in three volumes, *Histología del Sistema Nervioso del Hombre y de los Vertebrados*, containing 1,800 pages and 887 original illustrations. In 1905 he was awarded the Helmholtz gold medal by the Royal Academy of Sciences of Berlin. In October, 1906, with Golgi he received the Nobel prize for medicine.

The discovery, in 1913, of the gold sublimate method of staining neuroglia enabled Cajal to describe fibrous and protoplasmic types in detail, as well as a third element without processes. A two-volume work on degeneration and regeneration was completed, and printed by subscriptions of the Spanish physicians of the Argentine. Cajal was saddened by the outbreak in 1914 of the World or European War; for, unable to communicate with foreign laboratories, he felt as if he were carrying on a scientific monologue. By the end of the war most of the scientists acquainted with Spanish work had passed away. At 70 he retired from administrative duties, and on October 18, 1934, he died.

In the decade after the World War, Cajal saw erected the El Instituto Cajal, which came too late for his own work, but provided adequate quarters for his disciples. Of them, the best known in America is Pio del Río Hortego, who evolved a method for staining the "third element" of neuroglia.

Cajal stands preëminent among Spanish scientists. Great in neurohistology, he became an authority on color photography, an artist of merit and a leader in the renaissance of fine arts which sprang up before the recent Spanish civil war.

1930 Wilshire Boulevard.





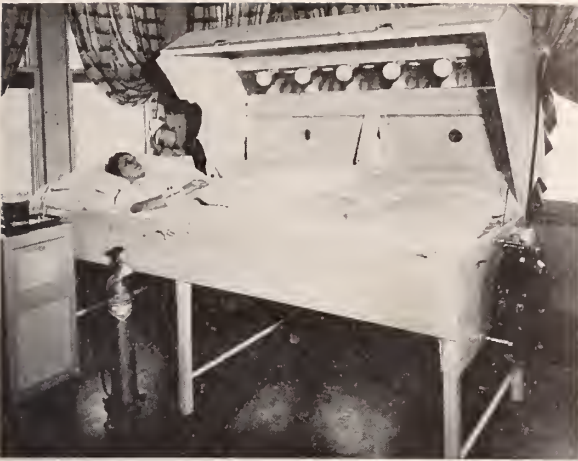


Fig. 2.—Cabinet opened. Patient rests upon feather tick over mattress. Note the five 250-watt CX Mazda bulbs in compartment above protected by wire mesh. Note Cutler-Hammer rheostat at end of cabinet to regulate current to lights.

in their biologic demands that life and growth are possible only in certain tissues of the body, and only under certain physiological conditions. Such an organism is the gonococcus, which has become a strict parasite by reason of its close association with mankind from time immemorial. Moreover, for the same reason a condition approaching symbiosis has evolved. In other words, so dependent has the gonococcus become upon the host for its complex and preformed growth requirements that it has entirely lost the necessary power to synthesize its own from more elemental pabulum. As a heterotrophic organism, therefore, life outside the body is quite impossible save on "enriched" media (blood or tissue juices added) and under most exacting conditions. Only the viruses, which will not grow at all upon artificial media, are more fastidious as to biologic requirements than the gonococcus.

The highly selective nature of this parasite—the gonococcus—is affirmed by its preference for columnar epithelium and transitional epithelium with a physiologically nondistensible and closely attached subjacent strata. Moreover, constant association with the isothermic host has established the optimum temperature for this organism at or near 98.6 degrees Fahrenheit. Clinical observations in the course of intercurrent febrile maladies have long attested its thermolabile nature. It is cultured with difficulty from febrile patients, according to Neisser and Scholtz.<sup>1</sup> It will not grow on culture media at temperatures above 100.4 degrees Fahrenheit.

It would appear, therefore, that the gonococcus is quite vulnerable from the standpoint of heat or induced fever (remembering fever as the body's universal response to infection) and especially since a condition of near symbiosis has been established so that this infection is almost afebrile or attended usually by a minimum of temperature elevation. Much scientific work by Carpenter, Boak, Mucci, Warren<sup>2</sup> and others has been done to determine accurately the thermal death point of different strains of the gonococcus *in vitro*. About 99 per cent are destroyed at 105.8 degrees Fahrenheit

within four to five hours. Although conditions *in vitro* and *in vivo* are by no means consonant, this point in many instances may be safely exceeded without injury to the body with nicely controlled artificial fever apparatus. Lower ranges of fever for briefer periods of time apparently attenuate the organism or inhibit its growth in the tissues.

Incidental to countless sorties upon the favorable soil of the host, the gonococcus has developed a protective mechanism of its own. Exact knowledge anent the toxin, elaborated by the gonococcus, poses the profession as yet. It has long been thought to be an endotoxin, *i. e.*, an insoluble principle tightly bound to the protoplasm of the organism. If this be true, then the antibody contribution to the chain of immunologic events is overshadowed by local tissue developments and phagocytic activity. On the other hand, Ferry's work<sup>3</sup> on both the gonococcus and meningococcus indicates the presence of a soluble principle, *i. e.*, an extracellular toxin capable of sponsoring antitoxin production.

**Sulphanilamide.**—Sulphanilamide—a forerunner in that intricate and as yet little-understood field of chemotherapy—has established clinical value against the hemolytic streptococcus,<sup>4</sup> the meningococcus,<sup>5</sup> and the gonococcus.<sup>6</sup> Since these organisms have much in common (family *Coccaceae*) and all have exotoxins, it seems logical to assume identical *modus operandi* for the drug in each instance. Recent investigation of the action of sulphanilamid by Osgood and Brownlee<sup>7</sup> (limited to beta hemolytic streptococcus) indicated that this drug neither promoted phagocytosis *per se* nor assailed the organism directly, but behaved rather as an antitoxin to neutralize the toxin.

The efficacy of sulphanilamide in gonorrhea apparently depends upon (1) the proper concentration (above 1-100,000) of the free form (para-amino-benzene-sulfonamid) in the body fluids, and (2) its continuous maintenance for lengthy periods so as to completely disarm the gonococcus and thus prevent tissue damage. For without tissue damage the parasite's nutritional demands cannot be satisfied, and hence the life cycle is interrupted. Clinical fulfillment of the above postulates is arduous because the metabolic endpoint for sulphanilamid varies preponderantly with the individual—an admixture of the free form, which is useful, and the acetyl form, which is both inert therapeutically and somatically toxic in quantities—and because of the rapid elimination rate for the drug (three-to four-hour interval). Haphazard administration of sulphanilamid is, therefore, under the circumstances, not only fatuous but positively dangerous, since any drug (and particularly with the benzene ring) operating in that narrow and shadowy zone between the living protoplasm of the body cells and the living bacterial protoplasm (with supposedly low toxicity for the former, but selective affinity for the latter or its vital process) is liable to vitiation, specific deviation or even reverse application under modified or unusual physiologic conditions. Hence, vigilance anent sulphanilamide is necessary, pending more comprehensive pharmacological knowledge.



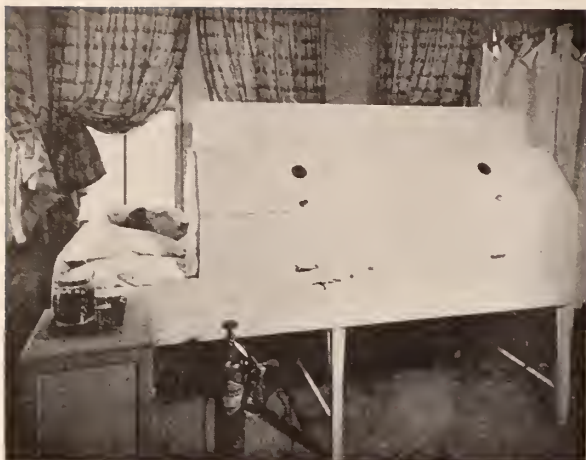


Fig. 3.—Homemade celotex cabinet molded after the original ideas of S. L. Warren. Note glass apertures for view of interior. Note terry cloth drapery about neck to seal interior. Note large panels to facilitate opening and care of patient.

#### THE DEFENSE MECHANISM

There are presently three interrelated and complementary parts to the mosaic of the defense mechanism, to wit: (1) the humoral attribute, *i. e.*, the antibodies; (2) the cellular attribute, *i. e.*, the fixed and mobile phagocytes; and (3) the local tissue attribute. Clinically, the rôle of local tissue immunity (3) is the most important in gonorrhea, yet, unfortunately, it is the least understood of all these attributes. Knowledge anent (1) and (2) is now fairly extensive, but its completion also must await better understanding of (3). Certain concepts, as outlined by R. Kahn<sup>8</sup> in his book on "Tissue Immunity," are followed herein.

*The Incubation Period.*—Although the columnar epithelium is most susceptible to the gonococcus, a relative degree of immunity must exist else no fixation of the organism nor its antigen could occur, and hence no tissue damage would result. The incubation period represents the time required for anchoring of the organism and hence for tissue damage to accrue.

*Subsequent Possibilities.*—With the advent of tissue damage (which, physiologically, is the exact opposite of inflammation), all defense attributes are stimulated, and particularly (1) and (2), so that an inflammatory bulwark (comprising accumulated fluids, phagocytes, bacteriolytic, and proteolytic substances) is interposed between the invader and the deeper tissues to prevent extension of the process. Great virulence of the organism—slow tissue response or temporary tissue disimmunity—may permit the gonococcus to enter the deeper tissues and the blood stream. The struggle now goes forward with either the host or parasite currently triumphant from time to time in this preformed inflammatory box. Destruction of the organism may occur rapidly and particularly if the organism can be locked tightly in the tissues. If the organism continues in ascendancy with the production of more tissue necrosis, an abscess results with evacuation of the contents and often into the urethra. Since every shade of tempo is possible, the organisms may continue viable for lengthy periods

within these inflammatory ramifications, causing little or no destruction of tissue. Eventually healing is consummated with restoration of function, either partial or complete.

In due course when all the tissues (local—antibodies and phagocytes) have developed selective affinity for the antigen, complete immunity is established. Undoubtedly, the specific adaptation of the tissues, fluids, and phagocytes alike to the antigen is fundamentally of the same general nature although entirely dissimilar as to manifestations.

#### THE STRUGGLE

The intimate details of this struggle, which are presently more philosophical than factual, constitute no ensemble. Only fragmentary data from several sources are available, and yet some correlation must be attempted despite existent hiatuses. Knowledge of colloidal phenomena,  $p^H$  values and biocatalysts is helpful. New horizons prevail anent substrates, growth factor prerequisites, oxidation-reduction potentials, bacterial chemosynthesis, respiration, and metabolism generally.<sup>9</sup> Yet these but accentuate the absence of other essential pieces to this jigsaw puzzle.

The antigen elaborated by the gonococcus is by nature a lyophilic colloid and when combined through adsorption with the tissues causes destruction of the latter. By the secretion of exo-cellular enzymes the gonococcus reduces this complex, broken-down tissue to simpler and more diffusible combinations. In turn, this more diffusible product is acted upon by endo-enzymes and assimilated by the organism to supply energy in its life cycle. That accumulated catabolic end-products or "respiration" by-products act as "pressor" substances to inhibit the growth of the organism seems plausible and in accord with the biologic behavior of other microorganisms. Likely this explains the clinical observation that structures with poor but intermittent drainage are so adamant to treatment.

The mechanism for antibody production in response to the antigen is vague at present. Whether the antibodies are new substances entirely or modified globulin fractions of the normal blood serum with the antigen "imprint" awaits discovery. Their specificity likely has to do with stereochemical spacing or formation of a template on the newly arranged protein.

#### CLINICAL APPLICATION

All expedients entering into the candelabrum of intelligent therapy have common objectivity and are theoretically complementary. These may be divided arbitrarily into (1) expedients which primarily amplify the defense mechanism; (2) expedients which primarily assail the parasite; and (3) expedients primarily equipollent and which operate simultaneously.

*Supplementation of the Defense Mosaic.*—The clinician comes to realize that while cure may depend upon the body's mechanism for parenteral digestion or destruction of the gonococcus and its antigenic agent, this is essentially a slow-moving, time-consuming and delicately balanced process. Moreover, while it is efficient when the offender is

a prisoner (incarcerated in the tissues) or when the organism has complete freedom (good drainage), it is often inadequate or uncertain when the parasite is on parole (intermittent drainage) or when complications arise. Since, in light of our present knowledge this defense mechanism lacks completeness, the clinician is often reluctant to undertake direct augmentation lest he inadvertently champion the parasite's fortunes at the expense of the host. For this reason, and despite theoretical advantages, the practical physician usually avoids injections of specific or nonspecific proteins or the intradermal use of the filtrate "antivirus" or other antigen-like substances in gonorrhea. The filtrate especially is a two-edged sword and as such has potentialities for harm—chiefly immunologic "fatigue" and disimmunity production.

*Direct Attack Upon the Gonococcus.*—Manifestly, once tissue damage develops and the organism is established, it is questionable whether any local injection can even contact the parasite, let alone destroy the latter. The clinical value of irrigations is likely contingent upon better drainage. Tissue damage is a biologic necessity for the gonococcus since, as a specialist, it has replaced plebeian tastes with a capricious appetite; hence any expedient which precludes or minimizes tissue damage is most valuable. It is, therefore, beholden upon the physician to prevent tissue damage (hence the strategy of acriflavin attack in the incubation period) or to limit the degree (hence to avoid strong injections, trauma, alcohol, coitus, etc.) once it accrues. Sulphanilamide appears especially apt in this respect, since if the toxin is neutralized, tissue destruction is impossible.

*An Equipotential Modality.*—The fever syndrome depends upon extraordinary acceleration of vital body activity, and the greater the physiologic exaltation the higher the temperature. The theory of induced fever is predicated upon the corollary: the higher the induced temperature or "forced draft" (within certain limits) the greater the enhancement of physiologic activity. Since each body cell has inherently a relative quota of physiologic immunity, it appears that the latter should, therefore, be augmented and somewhat in proportion to the degree of hyperthermia. Induced fever seems to stimulate the defense mechanism<sup>10</sup> in gonorrhea and also to assail the gonococcus simultaneously. We have proved the clinical value of induced fever as a supplement to other forms of therapy in the treatment of gonorrhea over a long period. Our objective with this modality has been to strengthen or fortify certain weak or inadequate links in the chain of immunologic events leading to the goal of complete tissue immunity, and also to sponsor a biologic environment inimical to the parasite's welfare. Accordingly we have focused our attention upon the patient and his tolerance—not the organism and its precise lethal point. If well tolerated, we endeavor, for four to five hours, to maintain the temperature steadfastly at 105.5 to 106 degrees Fahrenheit, taken rectally at ten-minute intervals and in consonance with pulse and blood pressure determination. In this way and by repetition if necessary, we have obtained gratifying results with

a minimum of danger. Induced fever appears most useful in complicated phases of the disease, particularly so-called gonorrheal arthritis and with resistant strains of the organism. After much preliminary experimentation with high-mettled machines for short-wave production, we now use a simple inexpensive home-made celotex cabinet, modeled after the original ideas of Stafford Warren<sup>11</sup> and equipped with five 250 watt CX Mazda bulbs for direct radiation. This is both practical and controllable.

#### IN CONCLUSION

1. About a century ago Philippe Ricord, with his famous *bon mot*, "We know when clap begins, but God alone knows when it ends," apparently crystallized the truth in that the cure of gonorrhea is always contingent upon and incident to complete tissue immunity.

2. Since our knowledge of this mechanism—which involves alike the antibodies, phagocytes, and local tissues—is still incomplete, the rationale of attack as to the biology of the gonococcus, which is better understood and which complements the defense forces, is apparent.

3. The two innovative expedients for this purpose (currently sulphanilamide and induced fever) while not exactly comparable apparently operate in much the same manner. Of the two, induced fever is the more certain and, if intelligently used, more closely approaches the ideal form of therapy.

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#### DISCUSSION

ARNO G. FOLTE, M.D. (1063 Flood Building, San Francisco).—Doctor Beach has just presented to us a very complete study of the immunologic aspects involved in the treatment and cure of gonorrhea. The vital question that comes to my mind is how we are going to profit from an understanding of these principles, which should make us into better clinicians. Most of these immunologic precepts are not new, and hold true in the treatment of any acute, pyogenic infection. It has often been repeated that gonorrhea is a self-limited disease, but this expression implies that we should attack gonorrhea by maintaining a strictly hands-off policy, and allow the defensive mechanism to operate and cure the patient. Perhaps this is what happens in the end; but none of us feel so impotent that we don't believe we can assist in this immunologic process in a helpful way. We know by experience that tissue immunity is a sensitive process, to be hindered, or enhanced, during treatment, according to the ability of the physician.

But whatever method of treatment we pursue it must be with an understanding of the three fundamentals which Doctor Beach has stressed, *i. e.*, first, a knowledge of the biologic life of the gonococcus; and, secondly, tissue defense mechanism. By tissue defense mechanism, we mean that a cure depends mainly on local tissue immunity, aided perhaps by the development of humoral antibodies, if Ferry's work on the exotoxin of the gonococcus is substantiated. Thirdly, tissue anatomy. This latter, because the gonococcus is a selective organism, and solely concerned with columnar-cell surfaces, such as are found in the anterior urethra and glands connected to it, and those transitional cell surfaces that are firmly attached to their sub-adjacent structures, as in the posterior urethra and trigone.

Inasmuch as tissue immunity is a variable quality in different patients, and not predictable in regard to the time element, and since most of our attempts to speed it up have frequently ended disastrously to the patient, it is encouraging to note that with recent advances in chemotherapy and fever therapy, a step forward seems accomplished.

I might add, that whatever method of treatment we follow, be it with injections, irrigations, filtrates, foreign proteins, fever, and the like, these must be used by keeping ever in mind the immunologic picture of the disease. Local tissue immunity is sometimes fleeting and cannot be measured by any sort of gauge or meter; but by careful and frequent observation much of this process can be estimated, and, with experience on the part of the physician, be aided.

I fully agree with Doctor Beach's conclusions that, with the advent of sulfanilamide and induced fever therapy, we approach a more rational attack on the disease, and the *modus operandi* of which fits in well with our ideas of the defense mechanism of the human host.

✻

JOHN G. CHEETHAM, M.D. (538 Medical Arts Building, Portland, Oregon).—The essence of Doctor Beach's paper is to the effect that cure of gonorrhea is always contingent upon and incident to complete tissue immunity. The outlined defense mechanism which contributes toward this end is concerned, separately and in combination, with antibodies, phagocytes, fixed and mobile; and with local tissue attributes.

Therapeutics is concerned with those expedients, as vaccine, which amplify the defense mechanism; with those expedients as local therapy and sulfanilamide which may primarily assail the parasite; and with those expedients as fever therapy which in dual manner contribute both to immunologic defense and have direct action on the invading organisms.

Let us consider briefly the four principal agencies in the treatment of gonorrhea. By the use of local therapy we endeavor to accomplish adequate drainage, to build up a certain degree of local immunity, and to achieve a certain amount of germicidal action. The advent of newer reme-

dies should not allow us to forget and discard this method of treatment which in the past has fulfilled the therapeutic requirements of a multitude of cases and which, when used in conjunction with these newer remedies, gives greater effectiveness than can be acquired by the use of such agencies alone.

With regard to the second agency, we agree that the immunological balance in gonorrhea is so delicate that, while vaccines and filtrates may be theoretically of advantage, yet both qualitative and quantitative factors in dosage and response are so variable that immunity defenses may be overthrown rather than built up. We do not ordinarily employ their use.

The third agency, artificial fever therapy, exhibits a definite thermolabile effect, but its preponderant activity lies in the formation and mobilization of immune bodies. The leukocytoses developed plays an important part in phagocytosis. In cases resistant to other medication, and in those patients who can tolerate it, hyperpyrexia is a valuable aid in the treatment of gonorrhea.

The last agent, sulfanilamide, has a bacteriostatic and bacteriolytic effect of a nature different from but supplementary to hyperpyrexia. Its chief effect is probably in the neutralization of bacterial toxins, thereby allowing the bactericidal properties of the blood serum and of the phagocytes greater activity. Used alone, while of immense value, this drug has not furnished the remarkable results that early reports in the literature indicated for it.

Since the attributes of these agencies vary in kind and degree, it would seem logical that a combination of two or more would be more effective than any one alone.

Superior results are being obtained with the use of local therapy and sulfanilamide combined—probably 75 per cent of cures within a time limit of six weeks.

Even more successful are the results from the dual use of sulfanilamide and artificial fever therapy. It is worthy of note that with this method the dose of the drug need not be so large nor the fever maintained at so high a level as when those modalities are used alone. When to this combination we add local therapy we feel that we have amassed together all of the essential elements in the treatment of gonorrhea; and therapy with this triphasic method is at the optimum. This triphasic treatment is not recommended as a routine, but is indicated for those cases which have failed of cure by other methods and for those patients in whom a quick and expeditious cure is necessary.

Of less import than the fact that by this method we have been able to secure 90 per cent cures within a period of two weeks' time—is the evidence that definite studies along the lines of immunity—such as today presented by Doctor Beach—are going on and from these the knowledge may come whereby, if we cannot hope for complete eradication of this disease, yet we may anticipate an early improvement in its control.

✻

JAY J. CRANE, M.D. (1921 Wilshire Boulevard, Los Angeles).—Doctor Beach's timely paper was received with favorable comments at the time it was given before the Section on Urology. His comprehensive explanation of the rational theories pertaining to the ultimate cure of gonorrhea were very enlightening. No statements were made relative to certain drugs or methods which had not been well tried in Doctor Beach's private practice, and his conclusions were based upon carefully made observations with a full knowledge of what others had been doing and what they thought.

Sulfanilamide, more than fever therapy, has given to the practitioner an effective drug which, in a large measure, can be considered as a specific against gonorrhea, thereby greatly shortening the course of the disease in many patients.

I am very glad that Doctor Beach's paper is published in a journal read largely by general practitioners, so that they may have a more clear understanding as to what part this drug plays in helping to eradicate this disease. Many think of sulfanilamide as a sterilizing agent, but it undoubtedly is not, as Doctor Beach has pointed out. One is apt to believe also, from the extensive use of the drug, that it is not very toxic. This thought is also wrong, for there is practically no one that takes the drug that is

entirely free of toxic symptoms. Nevertheless, its discovery has been a great step forward in the treatment of gonorrhea and its use should be cautiously continued.

Fever therapy, more difficult of administration than sulfanilamide, is undoubtedly very useful, but it has never become popular with the general practitioner because of the equipment required, and the supervision necessary in carrying out treatments. I believe that had sulfanilamide not been discovered when it was, fever therapy would be used more extensively today. Of the two methods, I believe the prescribing of sulfanilamide is less dangerous and accomplishes more.

The determination of cure is still difficult and should be carefully checked, as in the past, by all of our old methods, *i. e.*, prostatic massages, sounds, smears, and close observation over a period of several months, after a complete absence of all symptoms.

## HERPES ZOSTER: TREATMENT WITH THIAMIN CHLORID

By MAX J. GOODMAN, M.D.  
*Eureka*

DISCUSSION by J. F. Walsh, M.D., *Eureka*; Orris R. Myers, M.D., *Eureka*; Arne Ely Ingels, M.D., *San Francisco*.

THE pathology of herpes zoster is essentially an inflammation of the posterior root ganglia, causing a degeneration of some of the posterior root and of the peripheral nerve fibers. The skin lesions are erythematous patches, which soon change to vesicles and are found along the distribution of the affected nerve or nerves.

The initial symptom of this disease and one which, along with the dermatosis, presents the most prominent feature, is pain. This is, of course, due to the inflammatory process in the posterior root, but may also be attributed to the degenerative process occurring in the peripheral nerve tract. It may be likened to the pain in thrombo-angiitis obliterans, which is due to the nerve degeneration accompanying the circulatory disturbance (ischemic neuritis). In this latter condition it is a common belief that the pain persists until the process of nerve degeneration has been completed.

Herpes zoster may be divided into two etiologic types: (1) The symptomatic, which may be due to syphilis, spinal-cord tumor, vertebral disease, and arsenic poisoning, and (2) the essential type, which may come in epidemics, and is probably due to a virus. The treatment in the symptomatic type is obvious if, and when, the diagnosis is made. However, in the essential type, the chief treatment has consisted of alleviation of pain with salicylates, and the local care of the lesions. We have used pituitrin with questionable results.

Since the beneficial influence of vitamin B<sub>1</sub> or thiamin chlorid in neuritis, and its prevention of certain degenerative nerve changes is acknowledged; and since it has been established that the prominent feature in herpes zoster is a neuritis with degenerative changes, we had occasion to treat five such cases with subcutaneous administration of thiamin chlorid with gratifying results. These are herewith submitted:

### REPORT OF CASES

CASE 1.—G. W., male, age 49. Occupation, woodsman. Appeared on October 27, 1938, complaining of severe pain

in right hip and right chest of about five days' duration. Two days prior, there appeared a rash on the right side of his chest. Past history included an injury to his lumbar region in April, 1937, when he fell a distance of twelve feet. There were no fractures at that time, but a period of five months was required before he was released from treatment. Since then he has enjoyed good health. Examination at this time was essentially negative, except for herpes zoster along the course of the twelfth dorsal nerve. Wassermann was negative. At this first visit the patient was treated by cleansing the lesions<sup>1</sup>, and sodium salicylate was prescribed. He returned on October 31, 1938, complaining that the pain was only slightly relieved by salicylates. At this time he was given thiamin chlorid, 3000 units, hypodermically, and again on November 1, 1938. He returned on November 3, 1938, stating that for the first since the onset of his condition he had had a good night's sleep, and that at present he was entirely free from pain. He was again given a 3000-unit dose of thiamin chlorid, and this was repeated on November 5, 1938. At this last visit his lesions showed definite signs of healing and he was entirely free from pain.

CASE 2.—R. G., age 48, millwright. Admitted on November 17, 1938, complaining of a rash on left side of his chest, with severe pain in that area. The rash had appeared the day before. His condition was a herpes zoster along distribution of the eighth dorsal nerve on the left. Wassermann was negative. Examination otherwise was essentially negative. He was treated with thiamin chlorid, 3000 units hypodermically, on November 17, 18, 19, 21, 22, and 23. His pain had disappeared on the 19th, after two doses, and he was discharged from treatment with the lesions almost completely healed on November 23, 1938.

CASE 3.—G. S., male, age 22, mill worker. Came in on November 23, 1938, complaining of a rash in the right chest area, of three days' duration. Since the onset, there was a slight pain in his back with severe burning in the herpetic lesions. Examination was essentially negative, except for herpes zoster—distribution along the tenth and eleventh dorsal nerves on the right. Wassermann was negative. He was given vitamin B<sub>1</sub>, 3000 units by hypodermic, on the following dates: November 23, 25, 26, 28, 30, and on December 2 and 5. The pain was improved slightly on November 26, and had entirely disappeared on November 28. The lesions showed some healing on November 30, and were completely healed on December 7, at which time the patient was discharged from treatment.

CASE 4.—I. W., female, age 15, student, appeared in the clinic on December 20, 1938, complaining of "shooting" pains in the left shoulder for the past six days. The pain was aggravated by motion. On December 17, 1938, she began to have itching on the shoulder and on the left arm. On December 19 she noticed a rash on the inner aspect of the arm, on the left breast, and over the left scapula. There was some pain in the left wrist. Examination revealed herpes zoster of the areas mentioned. She was given thiamin chlorid, 3000 units hypodermically, on the following dates: December 20, 21, 22, 23, 24, and 27. Progress was as follows: There was marked improvement from pain on December 22, and she was able to move her shoulder without discomfort. There were no additional lesions present. On December 23 she complained of having had a few spasms of mild pain in the shoulder early in the morning, but when seen at the office these had entirely cleared. On December 24 she felt practically normal again, and the lesions were drying. At the last visit, on December 27, the patient was apparently cured. The lesions were gone, except for small, dry, erythematous patches in their place.

CASE 5.—C. V. J., male, age 71, retired, appeared on December 17, 1938, complaining of pain in the right chest for the past two weeks. For two days prior to admission he had noticed an erythematous rash on the right chest, extending along the distribution of the fifth and sixth dorsal

<sup>1</sup> Note: The lesions in all five cases were painted daily with tincture of merthiolate in collodion.



nerves. There was pain in the back in the area of the fifth, sixth, and seventh dorsal vertebrae.

*Past History.*—The patient stated that he had had "shingles" on that same side twelve years ago. In October, 1938, he had consulted a physician for what appears to have been coronary attacks, but since then he had no trouble until the present illness. Examination revealed a senile individual, barrel-chested, with a vesicular rash on the right chest in the distribution of the fifth and sixth dorsal nerves. The rash was much milder in appearance than the other cases of herpes zoster in our series, but its distribution and the attending pain precluded any other diagnosis. Physical examination otherwise was essentially negative, except for a mild bronchitis. Wassermann was negative. He was given thiamin chlorid, 3000 units hypodermically, on December 17, 19, 20, 21, 22, 24, 27, 29, and 31. On December 19 there was marked improvement in pain, but the number and severity of the lesions were increased. On December 27 he stated that there was still some pain present in the anterior chest wall on the right, but the lesions were almost completely healed. The patient was last seen on January 4, 1939, at which time the lesions were entirely healed, except for two or three small scabs. The pain had not recurred since the last visit.

#### COMMENT

In comparing these cases of herpes zoster treated with thiamin chlorid with similar cases in our experience treated by local applications and salicylates, it appears that the former is a logical and more satisfactory means of combating this condition. The pain is relieved more promptly; the lesions clear up at an earlier date; and the total disability time is notably decreased. In one of our patients (Case 5), a longer period of treatment was required. The age of the patient may have been a factor. Five patients are hardly sufficient evidence from which to draw conclusions, but the results we have obtained indicate that further investigation in this field is warranted.

525 Seventh Street.

#### DISCUSSION

J. F. WALSH, M. D. (Gross Building, Eureka).—Thiamin chlorid seems to be an effective means of therapy in herpes zoster. I have had three patients whom I treated in this manner, using 10 milligrams subcutaneously every day for six days. In each patient there was diminution of pain after the second dose; and after the fourth dose, the patients were entirely free from pain. The lesions healed in about ten days.

✻

ORRIS R. MYERS, M. D. (525 Seventh Street, Eureka).—I have read Doctor Goodman's report with interest, inasmuch as recently I had occasion to treat two cases with thiamin chlorid. I used 6,000 units intravenously, giving four doses on alternate days. The relief from pain was prompt, and the lesions healed within a week. Both patients had had pain for a week or more preceding treatment. I believe this method offers a great advance over our older means of treatment. For the local care of the lesions, I used 3 per cent ichthyol in collodion.

✻

ARNE ELY INGELS, M. D. (490 Post Street, San Francisco).—Doctor Goodman's favorable results with thiamin chlorid is welcomed by everyone who confronts the treatment problem of herpes zoster. Its value in the author's cases seems unquestionable beyond a mere coincidence.

When the usual approach is exhausted, excluding metastases to vertebrae, syphilis, peripheral neuritis and central nervous diseases, and the usual routine treatments (consisting of autohermotherapy, solution of K. I., vaccination, eventually morphin sulphate, pituitary extract injections, besides local applications and heat), all prove valueless, then it will be imperative to have a remedy at hand.

I wish the author would compile other cases, as time goes on, and report a larger number.

## THE LURE OF MEDICAL HISTORY†

### RARE MEDICAL BOOKS IN HUNTINGTON LIBRARY, AT SAN MARINO\*

By L. BENDIKSON  
San Marino

ABOUT half a year ago I had the pleasure of giving a talk before the Hollywood Academy of Medicine, about certain experiments in the field of documentary photography, as conducted in the laboratories of the Huntington Library at San Marino. But before starting with the main subject, I considered it would be appropriate to devote a few minutes to the rare medical books found in that famous institution, because their presence there is not generally known. And it is certainly not commonly known that there are in that library over one thousand medical books, originating from the first century of printing, which by themselves constitute a veritable reference library for the history of medicine. For no other purpose than to convince the audience of these facts, I then showed a few slides, representing some of the Huntington Library's rarest works on medicine. In consequence, the following account is in no way to be considered as a bibliographical attempt to cover a specific group of books, but merely as a random selection of rare medical works found at San Marino.

The first large group is that of the Incunabula, books which appeared during the first decades of printing. They represent the medical notions of the Middle Ages inherited from antiquity, as well as the more modern points of view, set forth in the new science of the Renaissance. The ideas prevalent in those books were those of Aristotle and Hippocrates, or rather their synthesis by Galenus. To show representative works of this group, in their very earliest editions, has not infrequently met with this difficulty, that the essays of some of the best-known writers appeared as a part of, or as a sequel to the works of other authors.

Hippocrates' *De medicorum astrologia*, for instance, as translated into Latin by Petrus de Abano, was published in Venice in 1485, as the concluding chapter of a work called *Opusculum repertorii prouosticon*. . . . The works of Aristotle, however, appeared at an early date, in collected form, and I could mention here the Greek version, as printed by Aldus Minutius, in Venice, in 1495.

Galenus' *Therapeutica*, also in Greek, was printed in the same city in 1500.

There are many books that are considerably older than these three, as Rodrigo Sanchez de Arevalo's *Speculum vitæ humanæ*, printed thirty-two years earlier, in 1468, and Avicenna's *Canonis medicinae libri*. . . of 1473.

Instances of collective publication of the works of several authors are the following: Arnoldus de Villa Nova's *Tractatus de arte cognoscendi venena*,

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

\* Illustrations referred to in the text were presented at the time the lecture was given. Only one of the series appears in this printed article.

**P**ROGNOSTICATION  
Drawen out of the Booke of  
Ipocras, Auiçen, and other no-  
table Auctours of Physicke,  
Shewynge the daunger of  
dyuers Cykenesses, that  
is to say, whether peryll  
of death be in them  
or not, the pleasure  
of almyghty  
God reser-  
ued.



Ipocras, and Auiçen.



Fig. 1.—This illustration represents recto and verso of title-leaf of the earliest separate publication in English of the *Prognostication* by Hippocrates, as printed in London, by Robert Wyer, circa 1530. (The Britwell-Huntington copy, one of three copies extant.)

issued as a sequel to Petrus de Abano's *Tractatus de Venenis*, was followed by Valascus De Tarenta's *De epidemia et peste*—the three issued together in Padua in 1473—and Magninus Mediolanus' *Regimen Sanitatis*, of 1493, which not only contains the author's treatise, that gave its name to this book, but, in addition, essays by Arnoldus de Villa Nova, Aristotle, Barbantius, and Averroes.

In a similar way, when I wanted to show an early edition of Guy de Chauliac's *Chirurgia*, I had to select a work that contained chirurgical treatises by Bruno, Borgognoni, Lanfrancus, and a few others as well.

To this same period belongs also a work of which the authorship has been a subject of dissension. It is called *De oculo morali* and has been attributed to John Peckham, to Petrus Lacipiera, and, finally, to Pierre de Limoges. It remains possible that Lacipiera was responsible for the Italian version, after all. It was printed twenty years after its *editio princeps*, of 1476, likewise to be found in the Huntington collection.

I will conclude this first group with Bartholomaeus Anglicus' *De proprietate rerum*, of which work the Huntington Library has twelve different editions, all issued before 1495. The latest of these is the English version by John Trevisa, as printed by Wynkyn de Worde.

With the latter work we have entered into the second group, namely, of books on medicine and surgery in the English language, which are ex-

tremely well represented in the Huntington collections, and for this reason selection of only a few becomes rather difficult. Among the older books and based on doctrines of Hippocrates, is a rare octavo, printed by Robert Wyer, about 1530, with title *Prognostication, drawn out of the booke of Ipocras and Auiçen*. From the same period dates *A new boke of medecynes . . .*, which was chiefly based on the writings of Gilbertus Anglicus. Other popular treatises are: William Bullein's *Bulwarke of defence againste all sicknes . . .* (1562) and *The Englishman's doctor*, by John Harrington, of 1607.

Of the more scientific works, I could name Robert Copland's translation of Guy de Chauliac's *Questionary of cyrurgyens*, printed in London in 1541, a forerunner of the works by Thomas Gale and William Clowes, who belonged to a group of surgeons, which, under the reign of Queen Elizabeth, endeavored to improve English surgery. Gale's *Certain workes of chirurgerie* was a collection of four treatises, published with a general title-page and a portrait of the author, in 1564. It has many illustrations and tables. Clowes's work appeared twenty-four years later, and the author directs his writings "To all the young Practizers of Chirurgerie." One of its illustrations represents the tool chest of a surgeon, as constructed for use on the battlefields.

Of obstetrical interest is Roesslin's *Birth of Man-kind*, reprinted more than twelve times in its days,



because it was the only book on the subject throughout this period. There is very much difference between the first and second editions, respectively, of 1540 and 1545. The book was translated by Richard Jonas from the Latin version, entitled "*De partu hominis*," and was not intended as a scientific treatise, but merely as a guide for prospective mothers and midwives.

Many books were written about the plagues that periodically swept over Europe. Benedict Canutus wrote the first "*Treatise against pestilence*" in 1510, and equally prominent in this field were the works of John Caius, one of the great leaders of medicine in England, who studied at Cambridge and under Vesalius in Padua.

So far I have briefly summarized two of the larger groups of medical books in the Huntington Library, and I will mention only five more representative works. In the first place, Andreas Vesalius' anatomical masterwork, in one of its best Paris editions, printed in 1565. Another item of great rarity is Diaz de Ysla's *Tractado contra el mal serpentino* of 1539, which is the first exhaustive study published about lues, or, as it was then called, "El mal serpentino." The three remaining works are, likewise, exceedingly rare and very little known, in spite of the fact that they belong to the earliest books printed on the American continent. They originate from Mexico, shortly after the days of the conquistadores. They are Alonso Lopez de los Hinojosas' *Summa y recopilación de chirurgia, con un arte para sagrar*. Its date is 1578. This was followed, within a year, by Augustin Farfan's *Tractado breve de anathomia y chirurgia y de algunas enfermedades*, and in 1592 by his *Tractado breve de medecina*.

The bibliographical divisions of the Huntington Library have compiled two lists of medical books in this library. The first one, called *Incunabula Medica*, contains over 500 titles; and the second, called *Medical Knowledge in Tudor England*, lists 60 titles, with short descriptions. These lists, describing certain groups of medical books, as their titles imply, can be obtained from the Library's publication office. Rather recently, a third mimeographed list has been compiled of a somewhat different nature. Pursuant to its policy of preservation, the Huntington Library has reproduced in the past several thousands of its rarer works by photostat, and is now prepared to print and supply copies of them. Among these thousands of reproductions are many works relating to medicine and science, and the list referred to, containing 270 such titles, is now available on request.

Henry E. Huntington Library and Art Gallery.

## AN ADDRESS TO A BOTTLE BY THE POET HORACE<sup>1</sup>

By DOUGLASS W. MONTGOMERY, M. D.  
San Francisco

ON receiving the July Bulletin of the San Francisco Medical Society my eye caught a short résumé of the transactions of "The Medical Friends

of Wine." Some members drank it at their meals as an aid to digestion and to sociability; some spoke of its excellent effects as a medicine; and others of its soothing and relaxing qualities.

Undoubtedly much good can be accomplished in this way in encouraging the leisurely, moderate enjoyment of alcoholic beverages, and it is along the line repeatedly followed by the poet Horace, whose "Address to a Bottle" is one of his most felicitous efforts.

\* \* \*

One day Horace went upstairs to his apotheca or wine room to get a jar of wine that had been bottled of even date with his own birth, and which was to serve for entertainment at a dinner given to an old friend, M. Valerius Messalla Corvinus. While having it conveyed downstairs he reflected on the many ways its contents affects human beings; and they are infinite—as many, indeed, as there are types of minds. Some it makes merry; others mad; still others insanely in love; while some, under its influence, go quietly to sleep. There is nothing else in the whole pharmacopeia that causes such a variety of reactions.

Here Horace grew tender and coaxing; and, addressing the jar personally, said: "My dearest jar, do none of these things. Do not even soothe to sleep; and when my old friend requests it, pour out an even mellower wine (*languidiora vina*) so that, under your gently stimulating influence, we may spend a delightful evening together."

Then he proceeds to relate some of the good qualities which a good wine, when properly and temperately enjoyed, should possess, and tells the jar that Messalla, though a scholar steeped in philosophic lore, is no ill-tempered person, but one keenly appreciative of a good, well-seasoned wine, bottled now for at least forty years. Wine such as this would warm up the virtue of even stern old Cato; it gently but firmly stimulates the dull; it makes the overcareful forget his cares, and it gives courage to the anxious and oppressed.

Finally, he requests his gentle bottle to bring to this evening's enjoyment Liber, the God of Free Expression; Venus, the Goddess of Mutual Affection, and the lovely Graces; and he hopes that the banquet may last till daylight!

\* \* \*

Horace and Messalla were very old friends, a friendship tried through many a vicissitude. As youths they had studied together in Athens and, also as youths, they had quite naturally joined the party of the idealist Brutus against Augustus and Anthony. After the disastrous Battle of Philippi, where Brutus was killed, they both escaped. Messalla, as a member of a wealthy senatorial family, may not have suffered severely for having joined the defeated party, but Horace was reduced to poverty through the confiscation of his paternal estate.

Messalla afterwards joined the party of Augustus, and was present at the Battle of Actium, became consul in Aquitaine, in Gaul, and even received the honor of a triumph. At the time of this banquet he had retired to a life of literary ease and

<sup>1</sup> Horace: Od. III:XXI. The term "bottle" is employed here as giving a more natural, though not so exact, translation for amphora than "jar." We bottle our wines; they put theirs in jars.

comfort, and was a patron of literature, notably of the poet Tibullus.<sup>2</sup>

After the Battle of Philippi Horace had severe trials. His estate, as previously mentioned, had been confiscated, but he was comparatively fortunate in securing a clerkship in the treasury department of the government, where he remained computing taxes with the awkward Roman letters until, by the publication of some of his satires, he became known. His case was a parallel to that of Bobbie Burns, who got a place as gauger (inspector) of whisky stills in the excise in Scotland. So fate fashioned two of her finest brains, and then provided them with very lowly occupations.

The bottle, too, had passed through its dark days, stored as it was in a garret, and exposed to the soot and the smoke of the household fires. It must be remembered that the Roman houses had no chimneys and that, therefore, the upper rooms were smoky, and were given over to slaves and a wine room. The smoke was supposed to aid in ripening the contents of the amphorae, or jars. Undoubtedly, like Horace and Messalla, the bottle showed on its exterior the marks of advancing years and, like them, through long years of trial it had become inwardly mellow, and when its spirit was poured out it sparkled and was ready to add to the pleasure of the occasion if properly and moderately enjoyed.

The aging of wine has always been regarded with favor and reverence; and rightly so, as it tends, like ourselves, to grow mellow with years. In this, up to a certain point, the container participates. *Vile saepe cadus nobile nectar habet*—"the best wine comes out of an old bottle." To produce a flask covered with cobwebs is a matter of pride in an otherwise immaculate household. Here, again, the comparison with human beings holds good, since oftentimes, under a threadbare coat, lies an excellent understanding and, as Burton remarks: "Horace himself was a little blear-eyed, contemptible fellow, yet who so sententious and wise?"<sup>3</sup>

In reflecting over what I have related we may recall that, in addressing the bottle as he came downstairs, Horace admonishes it to pour out an even mellow wine. There is an important meaning behind this phrase, *languidiora vina*, especially important to medical men in prescribing for their patients. Both Messalla and Horace were upwards of 40 years of age and were steady users of the product of the grape, and, therefore, would tend to become allergic to this form of sugar. As Rabelais remarks, they probably had begun to recognize the symptoms of approaching age though they would tell it to no one; and although they found wine more than ever agreeable to their taste, yet more than ever they feared happening upon a bad wine.<sup>4</sup> This fully explains, I think, the solicitude of Horace in the present instance.

Whisky, however, especially that from an old barrel, is free from this defect; but, unfortunately for them, neither Messalla nor Horace knew of this delightful beverage—delightful, I would say, when used moderately and circumspectly.

Much has been written about wine, both for and against, but very little of the container, which undoubtedly is a neglect. We see, however, that Horace did not neglect the bottle, but addressed a beautiful ode to it, and in a most personal way. Horace and Messalla are dead and gone, the bottle is likely broken, and its contents we know were consumed; but the song, although nearly two thousand years old, remains, and grows even mellow and more enjoyable as time silently passes on.

450 Sutter Street.

## HISTORY OF SAN FRANCISCO COUNTY MEDICAL SOCIETY

ONE OF FOUNDERS ARRIVED IN 1850; BEGAN  
PRACTICE IN TENT

IN the mad rush for California gold ninety years ago there were doctors in San Francisco whose thoughts were upon the practice of their profession. While the butcher, the baker and the candlestick maker were streaking it for the Sierra foothills to find a fortune, a handful of physicians were contemplating the formation of a medical society here.

The records of those dim and distant days have almost faded from existence, but we know that one of the founders of the first medical society here was Robert K. Nuttall. He arrived here in May, 1850, and with Dr. Robert Mackintosh, son of Sir William Mackintosh, a professor in the Edinburgh Medical School, he started to practice medicine in their tent, pitched on North Beach. Doctor Nuttall later married Magdalena, daughter of John Parrot, and built a home next door to his father-in-law on the northwest corner of Montgomery and California streets—in the very heart of the present financial district.

Due to the wanderlust of those days, the first medical society died from neglect. It was reborn when a group of physicians gathered on June 22, 1853, and formed the San Francisco Medical Society. Dr. Theodore Dimon was elected president. The physician chosen to fill the vice-presidency was Stephen R. Harris, who that year [actually] served as the third mayor of this city.

Due, perhaps, to the same factors which militated against the permanency of the first society, this reorganization of 1853 did not "take" either, and there were at least three subsequent reorganizations.

### FORTY MEMBERS IN 1868

By 1868 the San Francisco County Medical Society seemed to be launched upon a certain and continuous course, under the guidance of Dr. J. P. Whitney. There were forty members, many of whom as John F. Morse, H. H. Toland, Henry Gibbons Sr. and Jr., bear names well known to students of local medical history.

Their Code of Medical Ethics, Section I, Article I, begins: "A physician should not only be ever

<sup>2</sup> M. Valerius Messalla Corvinus was born in 64 B. C., and was one year younger than Horace, born in 65 B. C.

<sup>3</sup> Burton's *Anatomy of Melancholy*, 2:10.

<sup>4</sup> Rabelais. *Pantagruel*. Bk. II, ch. XXVIII.



ready to obey the calls of the sick, but his mind ought also be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. These obligations are the more deep and enduring, because there is no tribunal, other than his own conscience, to adjudge penalties for carelessness or neglect."

In the next three decades, which brings us up to 1900, the society continued to grow in numbers and influence, both professional and civic. It lent its aid and advice in framing legislation upon medical licensure so that charlatans and quacks who feed upon the credulity of the ailing members of society could be dealt with under the law, and that those properly qualified to practice medicine and surgery could be certified as competent in their chosen profession.

#### LIBRARY STARTED

For many years prior to the earthquake and fire of 1906 the San Francisco County Medical Society met in Native Sons Hall. The society was sufficiently rooted in the life of the city by this time that the great catastrophe only briefly interrupted its continuous existence, and so it shortly took up its abode in the Butler Building at Geary and Stockton streets. There it gathered a reference library for the use of its members. Meetings and business of the medical society were held and transacted there until February, 1918, when the society's headquarters were moved into the newly constructed Medical Building at 909 Hyde Street.

For fifty-three years after 1873 when the retiring president, John F. Morse, expressed the desirability of a permanent home, there were numerous plans made to construct or purchase a home for the society. These came to fruition in 1926 when the society purchased the Irwin mansion on Laguna and Washington streets.—San Francisco News, June 17.

## CLINICAL NOTES AND CASE REPORTS

### QUESTION REGARDING DIAGNOSIS

By VERNON O. STAHL, M.D.

Ontario

#### REPORT OF CASE

THE patient is a white girl of twenty-four years of age, height, five feet, five inches, weight 119 pounds. She looks to be in good health, and is normal in her mental attitude toward life. In August, of 1938, I was consulted, and the following salient points were obtained:

In childhood, the girl was quite sickly, frequently having "bilious attacks," and a persistent frontal headache. At ten years of age, her tonsils were removed. Menses began at eleven and were regular until the age of eighteen, when they became quite irregular; however, from the ages of fourteen to eighteen she had a period of comparatively good health. At eighteen, her present illness began. It started with headache, general malaise, loss of weight, loss of appetite, poor digestion with vomiting spells, and a temperature that persisted. The temperature ranged from 99 to 100.

In August, of 1935, she went to the Sansum Clinic in Santa Barbara, whose clinical and laboratory findings I am enclosing. As you will see, the examination was essentially negative.

Later, the patient came to the Abbott Clinic in Ontario. By that time she had gone down in weight from 117 to 85

pounds. Although no definite diagnosis was made, it was thought that the cause of the trouble was a misplaced uterus. Ovarian and pituitary injections were given for a year and a half, and under this treatment the patient regained much of her weight, weighing 110 pounds at the end of that time. In July, 1937, a suspension and appendectomy were performed. There was a marked improvement in digestion, but the other symptoms and the temperature remained. Two months later, she was diagnosed as having undulant fever, dilution undetermined, when she was given metaphen, brucellergen, and then sulphanilamide. The temperature, however, still persisted.

There is no history of chest pains nor of cough. The patient seldom has a cold, but, rather frequently, has sore throat. The menses last from seven to eight days, and are of a normal amount. There is slight leucorrhea of a whitish character, but no dysuria. No kidney trouble or pain. She is somewhat nervous, but sleeps well, although lightly. Patient states she used to grind her teeth at night.

In August, 1938, physical examination showed a well-nourished girl; weight 115, blood pressure 100/70, sinuses clear. Nose moderately congested, with hypertrophied turbinates. Teeth good. Throat clear, except for tonsil tags on left. Ears clear. Heart regular, with no murmurs. No enlargement demonstrated. Pulse 80. Temperature 99.8°. There were harsh breath-sounds at the right apex, both anterior and posterior. No râles noted. Focal fremitus normal. Expansion normal.

Both nipples moderately inverted, more so on the left, with the nipple closely attached to the underlying areolar tissue. Transillumination showed a small cyst. The abdomen was negative, except for the midline scar from operation. Vaginal examination essentially negative. Uterus of normal size, with second degree retroversion, freely movable, and adnexa clear.

The following laboratory work was done:

1. Blood: He., 86 per cent; R. B. C., 3,960,000; Color Index, 1.1; W. B. C., 6,250; Polys., 54; Ly., 39; Mono., 4; Eos., 2; Stab., 1.

2. Urine: Ph., 5; Alb., negative; Occasional pus cell.

Numerous follow-up urine examinations have continued with results much the same, pus cells being present.

3. X-ray negative. Taken by us, and read by Doctor Nevius. One taken in January, 1939, also negative.

4. A stool culture, run at the San Antonio Community Hospital, was negative throughout for ova and parasites.

5. Undulant fever was positive, through a 1:150 dilution. The opsonocytophagic index was as follows: Marked, 0; Moderate, 5; Slight, 12; Negative, 8.

Due to the fact that I had received a number of positive results of questionable degree from this laboratory, I sent the blood to Karl Meyer, which he tested personally, and to the Bureau of Laboratories at Berkeley. Both places pronounced it negative for undulant fever.

6. The blood Wassermann was negative.

In August, the patient was given an iron tonic, Lugol's solution, abdo capsules, yeast, and molasses for upbuilding. Mineral oil, milk of magnesia, and Clark's pills for her bowels. Estrogenic substance was given three times a week, 1 grain thyroid a day. Later, liver, 10 units, 1 cubic centimeter was given twice a week, along with 3000 units of vitamin B. Under this regimen, the patient has gained four pounds. Her blood pressure is from 107/75 to 110/75. There has been moderate headache. The temperature, ranging from 99 to 100, and the tired feeling, have continued. The breast has cleared nicely. In the past two weeks one-quarter cubic centimeter of Sherman vaccine has been given, once a week, also, two Jaculin a day.

Now this is the question: What is causing the persistent temperature?\*

225 Fallis Building.

#### SANSUM CLINIC REPORTS

August 7, 1935

Blood pressure, 112/70; weight, 103; height, 5 ft. 5 in.; temperature, 99°; pulse, 104; respiration, 22.

Urine: Color, straw; appearance, clear; reaction, 7; spec. grav., 1.009; alb., 0; sugar, 0.

Low field: Casts, 0.

\* Editor's Note.—Suggestions may be sent to Vernon O. Stahl, M. D., 225 Fallis Building, Ontario, California.

High dry field: Pus cells, 0; blood, 0.

*Ewald Test Meal*: Free HCl, 36; total acid, 56.

*Basal Metabolic Test*: Results in per cent, —11.

*Blood*: Hc., 87 per cent; R. B. C., 4,630,000; W. B. C., 9,700.

*Complement Fixation*: Kahn, negative.

*Blood Sedimentation Rate*: Sedimentation in 60 minutes.

*Orthodiagram*: Lungs, negative; aorta, normal; heart diameter is 42 per cent of internal chest diameter.

*Agglutination*: Abortus, tularemia, typhoid, para A, para B, all negative.

#### *Gastro-Intestinal Tract*:

Preliminary studies of the urinary tract and gall bladder area show no evidence of calculus. The chest is fluoroscopically negative. The esophagus presents no irregularity to the barium stream.

The stomach and cap show a normal mucosal pattern on study after the fractional meal. After the full meal there is no evidence of intrinsic defect in the stomach or cap. The pattern of the proximal small bowel is normal.

At five hours the stomach is empty. The head of the column has reached the hepatic flexure. The tail is in the terminal ileum.

At twenty-four hours, the large bowel was studied with a barium enema. The entire colon filled easily, without evidence of spasm, intrinsic defect, diverticulum, or developmental anomaly. The appendix was not seen.

*Conclusion*: There is no roentgen evidence of pathology in the gastro-intestinal tract.

#### *Cervical Spine*:

Anteroposterior and lateral studies of the cervical spine, including views through the open mouth, show a normal cervical vertebral alignment. The atlas and axis, as seen through the open mouth, present normal contours. The lateral projection shows no evidence of traumatic or anamalous irregularity. The styloid processes are unusually overdeveloped, their tips extending well downward into the fauces. In the anteroposterior view of the lower cervical spine a slight overdevelopment of the left transverse process of the seventh cervical vertebra is seen.

*Conclusion*: The cervical spine is normal, except for a slight overdevelopment of the left transverse process of the seventh cervical vertebra.

#### *Physical Examination*:

A good deal underweight; teeth in good condition; a small tonsil remnant on the left side; the submaxillary glands in neck slightly enlarged; lungs clear throughout; heart rhythm regular, with a slight roughness of heart-tones; a slight tenderness over the upper right and mid-portion of abdomen; rest of examination essentially negative.

#### *Duodenal Drainage*:

Found that liver, in particular, not secreting properly.

## GYNATRESIA WITH TORSION OF RIGHT ADNEXAE

### REPORT OF CASE

By NORRIS R. JONES, M.D.

Sacramento

**CASE 1.**—Case No. 77466. Admitted on December 2, 1938, and discharged on December 14, 1938.

A white girl, aged 15 years, became suddenly ill on the morning of December 2, 1938, after arrival at school. Her complaint was sharp, cramp-like pain in the right lower quadrant. She was sent home by the school nurse. The patient was first seen by me at about 10:30 in the morning, at which time she was lying in bed with both thighs flexed on the abdomen, and seemed to be having considerable pain.

The family history was negative. She had had the usual diseases of childhood and had had a tonsillectomy performed in 1931. Questioning developed the fact she had never menstruated, but her past health had been excellent and she had had no symptoms prior to the present attack. She had vomited shortly after returning home from school. Her bowels had moved normally that morning and there was no history of urinary disturbance.

Examination revealed a temperature of 98.4; pulse, 90; respirations, 24. The remainder of the examination was

negative except for exquisite tenderness over McBurney's point with the lightest pressure, plus marked muscle spasm. Rectal examination was not done. A tentative diagnosis of acute appendicitis was made and the patient was transferred to the Sutter Hospital. A catheterized specimen of urine was negative. The blood count revealed: 74 per cent hemoglobin; 8,450 white blood cells; 86.5 segmented forms; 1 staff form; 1 eosinophil; 26 lymphocytes; 3.5 monocytes.

A possibility of torsion of the ovarian pedicle was considered, but it seemed more likely that a very fulminating type of acute appendicitis, with an early gangrene, was responsible for the symptoms.

*Procedure.*—Under gas anesthesia a McBurney incision was made and when the abdominal cavity was entered a small amount of blood-tinged fluid escaped. A bluish mass bulged into the incision, which was identified as the right tube and ovary, twisted three times on its pedicle. The pelvic peritoneum showed a large amount of dark brown staining, and the lower border of the omentum appeared quite black for a distance of an inch from the periphery. The appendix was normal. The left tube and ovary were normal, as was the uterus. A large mass was felt extending downward from the cervix, which was extraperitoneal and somewhat compressible. Examination of the pelvic contents revealed that the mass had forced the uterus and the adnexae into an abnormally high position in the abdominal cavity, and may have played some part in the production of the torsion, since there was no history of trauma or unusual physical activity prior to the onset. The mass was felt to be a vagina full of retained menstrual blood, and a tentative diagnosis of imperforate hymen or vaginal atresia was made. The right tube and ovary were removed in the usual manner; the appendix was also removed. The staining of the peritoneal tissue and periphery of the omentum was due to blood pigment which had either passed through the fimbriated ends of the tubes or through the walls of the vagina. The abdomen was closed in layers without drainage.

The patient was then placed in lithotomy position and examination revealed a complete absence of vaginal opening. A vertical incision was made between the labiae majora and carried inward by sharp gentle dissection until a bluish mass was encountered. This was incised and proved to be the blind end of the vaginal tube. More than a quart of chocolate-colored fluid was emptied from the tract. The cut edges of the vagina were then sutured to the skin by means of a continuous suture, thus restoring the normal anatomy.

The pathologic report is as follows:

"The specimen consists of the ovary, tube, and appendix. The ovary contains a large cyst having a diameter of seven centimeters. Its surfaces are of a purplish color. The walls appear to be edematous. The ovary is also very markedly congested and hemorrhagic in appearance. The tube is of about twice normal thickness, the walls are hemorrhagic and deeply congested. Marked edema of the entire length of the tube is noted. There is nothing of note in the appearance of the appendix.

*Microscopic examination* shows the following: The ovarian tissue is very markedly edematous. The stromal cells are separated widely, having the appearance of myxomatous tissue. Marked interstitial hemorrhage is noted. The veins and small capillaries are engorged with blood. The wall of the cyst described above is lined with cuboidal epithelium. Many macrophages are present throughout the stroma which are loaded with hemosiderin.

The tube also shows marked edema of the walls. The mucosal folds are rounded and the stroma contains many macrophages with hemosiderin granules. The connective tissue cells are spread widely apart by a collection of fluid. A moderate number of polymorphonuclear leukocytes are seen in the stroma and also throughout the wall. The vessels on the surface show marked engorgement.

*Diagnosis.*—Large follicular cyst of the ovary. Partial early hemorrhagic infarction of the tube and ovary due to obstruction of the vascular supply."

The patient made an excellent recovery and was discharged from the hospital on the twelfth day.

This case report reemphasizes the importance of inspection of the genital tract and rectal examination, which were not done in this instance.

Medico-Dental Building.



# BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

## TYPHOID FEVER: ITS IMPORTANCE

### I. THE CONTROL OF TYPHOID FEVER IN CALIFORNIA\*

WALTER M. DICKIE, M. D. (State Building, San Francisco).—In 1874, William Budd, M. D., published an article on the nature, mode of spreading and prevention of typhoid fever, stating: "There are few things which concern the people of this country more deeply than to know the exact truth touching the mode in which this fatal fever is disseminated amongst them. Every year, on the average — take the United Kingdom through — some fifteen thousand or more of their number perish prematurely by it: a population equal to that of a considerable city every year swept into the grave by a single, and as I hope to show, a perfectly preventable plague!" This statement was written at a time when the doctrine, that typhoid fever was a contagious fever, was referred to as "an illusive hypothesis." In addition to observing, at that time, that the disease was contagious, Doctor Budd noted that convalescents could not "always be safely allowed to mix with others without precaution."

In 1938, 473 cases of typhoid fever were reported in California. Of this number fifty-five terminated fatally, although there were no outbreaks involving more than ten cases.

The prevention of typhoid fever depends upon eliminating the typhoid bacillus from food and water supplies, and otherwise preventing its entrance into the human body. Thus prevention includes:

1. Careful supervision of all cases of typhoid fever, and adequate disinfection of the patients' excreta.

2. Supervision of the patient throughout convalescence, including laboratory examinations of urine and feces, with release only where such specimens are proven free from typhoid bacilli.

3. Careful epidemiological investigation of each case to determine source:

- (a) If water: source of contamination to be eliminated.

- (b) If milk: carrier to be found and excluded, or contamination of water to be corrected.

- (c) If carrier: individual to be restricted as to occupation, and kept under supervision of the health department.

- (d) If ambulatory or missed case: patient to be placed under the control of the health department.

4. Immunization of persons exposed to the risk of contracting the disease.

The supervision of sewage disposal and water supplies has accomplished much in the prevention

of this disease. In general, the higher the standards of sanitation the lower the incidence of typhoid. The supervision of the production and distribution of milk and milk products is also a part of the prevention program. When these avenues of disease-transmission have been closed, further incidence reduction is accomplished by close supervision of cases and known carriers through the aid given by trained, experienced personnel in well-organized health departments where adequate facilities are provided for careful epidemiological investigation; seeking carriers, ambulatory, and missed cases. When community protection is provided through the above listed procedures, immunization with typhoid vaccine is recommended only to those whose activities involve the risk of infection beyond the control of the individual.

The incidence of typhoid fever today proves Doctor Budd was correct in his unsupported contention that typhoid fever is preventable. Even though the number of cases recorded in California in 1938 represent the lowest on record, control procedures must be applied still more rigorously to insure this protection to the public.

\* \* \*

### II. TREATMENT\*

GEORGE E. EBRIGHT, M. D. (384 Post Street, San Francisco).—The management of a patient during the course of typhoid may be likened to the navigation of a ship through waters beset with well-known and dangerous rocky reefs: the navigator of a ship, who knows the location of the points of danger, is better able to avoid them.

It is well, therefore, to remember that in typhoid fever, toxemia causes 50 per cent of the deaths, perforations 15 per cent, hemorrhage 10 per cent, and lung involvement 10 per cent, with the remaining 15 per cent from other complications. These figures, while admittedly approximate, are nevertheless sufficiently exact to indicate what may be anticipated as the greatest sources of danger.

There is no specific treatment with vaccine, serum, or bacteriophage. Specific drugs are lacking. Sulphanilamide has been tried, but the results are far from convincing.

Therapeutic extremes, with their dangers, have had their vogue. Calomel treatment throughout the disease, a futile effort to keep the intestinal canal free from offending material, has given way to a possible dose of calomel in the first few days of the disease. The violent Brand treatment of thirty-five years ago, which subjected the struggling, shivering patient to vigorous massage while in a tub of ice water, is gone.

\* From the California Department of Public Health.

\* From the University of California Medical School.

All intestinal antiseptics, salol, the longest popular, are futile. Urotropin as a prophylactic against gall-bladder infection, is useless in the presence of alkaline bile.

Gone, too, is the rigid milk diet with its coma of starvation acidosis, and the delirium of thirst and dehydration. Revolutionary advancement in treatment has been accomplished by the introduction of a generous diet.

Since the advent of this liberal diet, the mortality rate has been reduced from 20 to 10 per cent, tympanites has become unusual, diarrhea less a problem, delirium and stupor have been lessened, and there are fewer deaths from perforation and hemorrhage. While it is true that the virulence of the specific toxins may be overwhelming and fatal, nevertheless one is forced to conclude that starvation acidosis and dehydration have been of equal, if not greater, importance.

The essential element of typhoid treatment now consists of a high-value diet and the care of the alimentary tract.

The minimum daily diet should consist of three thousand calories, better four thousand. Food should be soft and of high caloric value.

Carbohydrates should constitute over half of the food. They are readily assimilable and save body protein. The free use of lactose, sugar and honey readily permits the administration of a large total quantity.

Fats make up one-third of the total calories, and are used in the form of butter and cream.

Eggs, milk and cream supply the proteins. A diet of three thousand calories will contain sufficient protein. If a dietitian is not available, nurses have access to the diet lists of Coleman and Schaffer. Three principal meals may be given, and also intermediate feedings between breakfast and dinner, between dinner and supper, and in the evening.

The vitamin content of typhoid diet is of important interest.

*Vitamin A.*—Fat soluble A which is present in butter, cream, egg-yolk, carrots, spinach, green peas, bananas, and cod or halibut liver oil is available in ample amount. If necessary, cod or halibut liver oil may be administered in ten thousand to twenty-five thousand U. S. P. units daily.

*Vitamin B* complex is essential to carbohydrate metabolism. Its effect in relation to polyneuritis also indicates the advantage of its use in typhoid fever. It is available in cereals containing wheat germ and in powdered brewers' yeast.

*Vitamin C* is required on account of its relation to the healing of wounds and also to carbohydrate metabolism, to say nothing of the suggestion of possible effects of infection, as claimed in whooping cough and diphtheria. It is usually deficient in the presence of fevers. An index of its content of the blood stream may be obtained by measuring its output in the urine. Sufficient quantity may be expected from the amount of orange or lemon juice taken, egg-yolk, butter, cream, and spinach, which is a part of the typhoid diet. If necessary, civitamic acid tablets, 100 to 300 milligrams, may be used, but an excess may do harm in hemorrhagic

conditions by producing a decrease of thrombocytes.

*Vitamin D.*—A patient deprived of sunlight for a number of weeks may be considered a candidate for rickets. The advantage, therefore, of wheeling the patient's bed into the open air can be readily understood in this connection. While it is true that he may not tolerate exposure to direct sunlight, blue sky contains effective ultra violet radiation. If necessary, the use of an ultra-violet lamp may be considered.

Fluids should be given in amply sufficient quantity, the condition of the patient's tongue being a useful index. A chart of fluid intake should be kept. At least 2000 cubic centimeters are required.

In delirium or in coma, resort must be made to any necessary device to introduce the desired amount of calories and of water; otherwise, acidosis due to starvation is very likely to supervene. Feeding through a nasal tube may be used. Fluids may be given subcutaneously or intravenously, or by rectum. Five to 10 per cent glucose intravenously has the double advantage of affording water and some nourishment.

The care of the bowels is of great importance. Cathartics should be avoided, although there is no great objection to an initial dose of calomel and a mild saline, if the patient has been a heavy eater and is seen in the first few days of the disease. Thereafter, a daily cleansing enema of soapsuds or saline usually serves the purpose of emptying the rectum. The objections to the use of petroleum oil outweigh its usefulness. It should be remembered that troublesome diarrhea may be due to cannulated impacted feces in the rectum or sigmoid.

Diarrhea sometimes occurs due to too much cream, or too much sugar or lactose or fruits, and may usually be controlled by regulating the diet accordingly. Tannin preparations or bismuth may be used; remembering, however, that an excess of bismuth may cause an impaction in the large bowel, and also that a small dose repeated more than a few days easily becomes a source of trouble.

Codein, morphin, and all opium derivatives are anathema in typhoid. They depress peristalsis and tend to the production of meteorism, and they may increase the danger of paralytic ileus.

Toxic ileus is an ever present danger to typhoid, and opiates enhance that risk. The resulting distended tympanitic abdomen makes feeding nearly impossible, induces starvation acidosis and coma, predisposes to perforation and hemorrhage, and makes the diagnosis of perforation practically impossible. One cannot paint too vividly the tragic picture presented by a patient in whom paralytic ileus has occurred following the constipating effect of even a few doses of codein.

Tympanites should be combated chiefly in its prevention. If it does occur it is advisable to use soap suds or soda bicarbonate enemas, and the insertion of a rectal tube from time to time. Turpentine stupes should be applied and the diet adjusted. The use of pituitrin invites perforation and is, of course, out of the question.

Hemorrhage, early in the disease, occurring from capillary engorgement, is rarely serious.



Later erosion of an ulcer into a large artery or vein may be rapidly fatal. In the presence of hemorrhage all food is withheld and very little water allowed. Cold applications are kept on the abdomen. The rule against the use of opiates must be broken, and an eighth of a grain or one-fourth of a grain of morphin, or an equivalent dose of pantopon or dilaudid, used as needed to keep the patient quiet. Hemostatic drugs are useless.

Perforation of the bowel requires immediate laparotomy, every hour of delay lessening the chances of the patient's recovery. Early diagnosis of perforation is imperative, and frequently is extremely difficult or impossible. The attending nurse should be impressed with the importance of observing and immediately reporting the following indications: any abdominal pain—as a chill—a feeling of chilliness, and even "feeling cold," a sudden rise in the pulse, or a sudden drop in temperature, particularly when the latter two are associated, and the patient is delirious or in coma. Of course, if the mind is clear, pain and the evidence of shock, and physical signs of perforation—such as tenderness and muscle spasm in the right ileac region, and localized skin sensitiveness—are positive aids. Leucocytosis, if it occurs at all, is to be expected later with the advent of peritonitis.

In the distended tympanitic abdomen of a delirious or comatose patient, recognition of the occurrence of perforation of the bowel is extremely difficult. It is under such conditions that shock may only be evidenced by a drop in the fever together with the rise of the pulse rate. Chilliness may be so slight as to be entirely overlooked except by the most watchful and experienced attendant. Ovarian colic may simulate perforation; and as menstruation is frequently suppressed during the fever, the differential diagnosis may be quite troublesome.

Fever, when as high as  $102\frac{1}{2}$  to 103 degrees, requires rational hydrotherapy for the patient's comfort. A tepid or alcohol sponge every two hours is beneficial. A cold-pack, consisting of placing the patient between blankets and enveloping him in a sheet wrung out of cold water, may frequently be used to advantage.

Delirium may require a sedative such as one of the barbiturates; but, as a rule, depressing drugs should be withheld, if possible. Hydrotherapy, as mentioned above, acts as an excellent nervous sedative. A resourceful nurse can do much in controlling agitation. Patients with typhoid, not only during the fever but also during the early afebrile convalescence, should never be left alone nor should the nurse be careless of her own safety, because sudden violent homicidal or suicidal impulses may supervene in an apparently rational patient. From a medico-legal standpoint, a patient, who has been apparently rational throughout the course of the disease, may have no recollection of anything that happened during his illness.

"Typhoid precautions" are generally understood to consist of meticulous care in preventing the spread of the disease from the patient to other persons, involving sterilization of the patient's

effluvia, his clothing, eating utensils, and anything that has been in contact with him. No nurses or other persons should be in contact with the typhoid-fever patient except those who have been immunized against typhoid during the preceding two years, and whose antityphoid vaccination has been completed at least four weeks previously.

The opinion of immunologists is divided as to whether members of the patient's family or contacts should be vaccinated. Halliday, who had wide experience as an epidemiologist, opposed it on account of the negative phase in the week after the first injection. Immunization is not conferred for three or four weeks after vaccination. One is forced to the conclusion, then, that this procedure should be advised against as being still in the experimental stage, and that it is not without danger.

\* \* \*

### III. ACUTE SURGICAL COMPLICATIONS

WALLACE I. TERRY, M. D. (384 Post Street, San Francisco).—About forty years ago the late Dr. William W. Keen published a volume of four hundred pages entitled, "The Surgical Complications and Sequels of Typhoid Fever," based on thousands of cases from the literature and from his own experience.

Fortunately typhoid fever is relatively a rare disease today, and many surgeons of the younger generation have never seen a patient with a perforated bowel or gall bladder due to typhoid infection.

Nevertheless, during the years 1935 to 1938, inclusive, a total of 2105 cases of typhoid fever has been reported in California with 255 deaths, a mortality rate of 12.1 per cent. Based on the experience of past statistics, it seems safe to assume that approximately a quarter of the deaths were due to perforation of the bowel.

Of the acute surgical complications of typhoid there are five to be considered in this brief paper, viz., perforation of the bowel; peritonitis, not due to perforation; acute gall bladder disease; massive hemorrhage from the bowel; and rupture of the spleen.

Intestinal perforation occurs in about 3 per cent of all cases of typhoid and usually in the terminal portion of the ileum, although a fair number has been found in the sigmoid and other portions of the colon. Ulcers in the intestine are present in typical cases of typhoid, and it is usually during the third week of the disease when the ulcers are deepest that a perforation may occur. In many cases at autopsy the ulcers are so deep that only a paper-thin portion of peritoneum remains, and one is surprised that a "blow-out" has not taken place. Multiple openings are found in from 10 to 15 per cent of the cases of perforation.

The diagnosis of perforation in patients who remain conscious during the course of their sickness is relatively easy. In the typical case there is sudden severe abdominal pain, rigidity and tenderness in the right lower quadrant, nausea, vomiting, and collapse with a drop in body temperature and a rise in the pulse rate. The drop in tempera-

ture may be from three to six degrees, and may be due in part to sweating which follows the severe pain. The pulse rate in typhoid fever is low in relation to the height of the fever, averaging around 100, but jumps up twenty to forty beats per minute with perforation.

Abdominal tenderness is generally present during the course of the disease, but is intensified at the time of perforation.

Rigidity is an important sign and is readily discovered by gentle palpation. It is reflex in origin from peritoneal irritation, and is similar in type and location to the rigidity accompanying acute appendicitis.

Collapse with a marked fall in blood pressure is significant. There is a peritoneal shock which produces it. It is advisable, when there is a suspicion of impending perforation, to take the temperature, pulse and blood pressure frequently, so that sudden changes may be promptly noted.

If time and facilities permit, a properly made x-ray examination will show a gas bubble in the abdomen following bowel perforation.

The diagnosis of perforation in the comatose or delirious patient is more difficult to make, and we have to rely on the signs of collapse, drop in temperature, increase in pulse rate and abdominal rigidity or muscular spasm, with the x-ray findings.

It is, indeed, true that most of the above signs and symptoms may be present, and yet no perforation is discovered at operation. Such cases are not common, however, and no great harm has been done by a properly executed laparotomy—in fact one is able to reinforce the bases of ulcers which threaten to perforate.

The mortality rate of typhoid perforations of the bowel, without operation, is practically 100 per cent. The only logical treatment we now have is early operation with closure of the perforation.

A right rectus incision is generally preferable, and search for the puncture begun at the terminal portion of the ileum. As the opening may be very small, it is well to have an assistant watch one side of the gut, as it is being drawn out, while the operator scans the opposite side. Plaques of lymph on the bowel may conceal the perforation, and should be carefully detached. Failing to find the perforation in the lower three feet of ileum, one should next examine the sigmoid flexure of the colon.

Multiple openings, if close together, may necessitate a resection; but ordinarily a few interrupted silk sutures are sufficient to close a perforation, taking care that the bowel lumen is not narrowed, and reinforcing the suture line with a bit of omentum.

The toilet of the peritoneum and the after-care is the same as for other perforations of the intestine, such as gunshot wounds, where fecal contamination of the peritoneal cavity is present.

Owing largely to the general toxemia from typhoid the mortality rate following operations for perforation has been high, ranging around 70 per cent, up to the year 1907. Since that time many advances have been made in surgical technique and

in the treatment of typhoid fever, so that one could hope for a reduction of the mortality rate to 50 per cent. One should remember that the mortality rate of acute appendicitis with spreading peritonitis is anywhere from 27 to 50 per cent, according to Bower (*Jour. A. M. A.*, 112:11, 1939), and that such patients have not been weakened by prolonged fever and toxemia to the same extent as the sufferer from typhoid.

Peritonitis during the course of typhoid, and not due to intestinal perforation, has occurred in a fair number of cases. It may be due to appendicitis, suppuration of mesenteric glands, abscess of the spleen, pelvic inflammatory or, in some instances, to an undiscovered cause, possibly the passage of bacteria through the damaged intestinal wall. In any event the treatment is surgical.

Many years ago it was found that the typhoid bacillus was almost invariably present in the bile in cases of typhoid fever. It is not surprising, therefore, that gall bladder infections should result. Most of these complications are chronic in character and will not be considered in this paper.

Of the acute conditions, acute cholecystitis and gangrene of the gall bladder are to be mentioned, with or without perforation of that viscus.

Pain, tenderness, and rigidity of the right upper abdominal quadrant, with rather persistent vomiting and occasional jaundice, are aids to the diagnosis of acute gall bladder disease. When the gall bladder has perforated, the symptoms of a spreading peritonitis are superadded. The operative procedure will depend upon the condition of the patient—a cholecystectomy preferably or a cholecystostomy. One case of simultaneous perforation of the gall bladder and multiple perforations of the ileum was reported by Kiliani in 1907.

The leucocyte count is apt to be of little value in the diagnosis of gall bladder or bowel perforation. A leucopenia generally accompanies typhoid fever, and the blood picture may not change after the abdominal crisis sufficiently early.

Hemorrhages from typhoidal ulcers are quite common, but only infrequently do they produce alarming symptoms. These hemorrhages are most frequent during the second and third weeks of the disease, and may be associated with perforations. Blood transfusions are indicated after the more severe hemorrhages. It is scarcely justifiable to open the abdomen and search for a bleeding point, although one such operation was reported where an open vessel was found and ligated.

Spontaneous rupture of the spleen has been reported in a few cases, usually with a fatal outcome. One notable case was promptly diagnosed and a successful splenectomy done, as reported by Conner and Downes. In their case the principal diagnostic features were severe pain in the left hypochondrium and the left shoulder, with marked dullness in the left flank due to intraperitoneal hemorrhage.

If the diagnosis of perforation or other serious complication of typhoid fever is to be made early, it means intelligent and constant watchfulness on the part of the nurses and the physician, especially during the second and third weeks of the disease.



# CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

## CALIFORNIA MEDICAL ASSOCIATION<sup>†</sup>

CHARLES A. DUKES.....President  
HARRY H. WILSON.....President-Elect  
LOWELL S. GOIN.....Speaker  
KARL L. SCHAUPP.....Council Chairman  
GEORGE H. KRESS.....Secretary and Editor

### OFFICIAL BUSINESS ASSOCIATION ACTIVITIES

1. *Wagner Health Bills (S. 1620 and H. R. 6635).*
2. *Roster of California Congressmen.*

### DEPARTMENT OF PUBLIC RELATIONS

1. *Meeting of Committee on Public Relations: Minutes.*
2. *Health Insurance in Australia Is Dead.*
3. *Profession Warned by New Zealand Government.*
4. *California State Board of Public Health.*
5. *Vital Statistics for California.*
6. *Joint Meeting of Sonoma, Solano, Marin, and Napa County Medical Societies.*
7. *Group Medical Care in Michigan.*

## "WAGNER HEALTH BILL" (S. 1620) AND AMENDMENTS TO HOUSE RESOLUTION (H. R. 6635)\*

### Resolutions

WHEREAS, A proposed Federal law, submitted by U. S. Senator Robert F. Wagner of New York, and known as the "Wagner Health Bill: S. 1620," is now being considered in Senate committee hearings at Washington, D. C.; and

WHEREAS, S. 1620, if enacted into law, would introduce such radical changes in the public health set-up of the Federal and State governments, as well as in curative medical practice, so that a real menace would be created to the public health interests of United States citizens, as well as to medical practice standards as now constituted, and also to the ancillary hospital and other services associated in preventive and curative medicine; and

WHEREAS, The existing plan of medical practice, based as it is on a merit system of competitive practice, free from all political domination and paternalism, has been largely responsible for making it possible for the United States and its federated commonwealths to show the lowest morbidity and mortality rates among civilized nations; now therefore be it

*Resolved*, By the California Medical Association, through its Council, that the component county medical societies and the members of the Association be urged to write to the California members of the United States Senate and House of Representatives requesting them to use their best efforts to prevent the passage of S. 1620, and of proposed laws of analogous nature, such as are proposed in the amendments submitted by Senator Wagner to House Resolution 6635.

<sup>†</sup> For complete roster of officers, see advertising pages 2, 4, and 6.

\* For other comment concerning S. 1620 and H. R. 6635, see in this issue, on page 73.

(Copy of a telegram sent to U. S. Senators Hiram W. Johnson and Sheridan Downey of California)

San Francisco, June 30, 1939.

Hon. Hiram W. Johnson  
Senator from California  
The Capitol,  
Washington, D. C.

The California Medical Association, on behalf of its six thousand physician members, urges you to oppose amendments to H. R. 6635, proposed by Senator Robert Wagner and now pending before Senate Committee on Finance. Amendments would authorize Social Security Board to extend medical and ancillary services to an ill-defined group of citizens, and would lay foundation of a form of national medical service that is worthy of more serious study before being inaugurated. The United States has lowest sickness and death rates among civilized nations, due largely to high standards of professional service rendered by America's physicians and surgeons. Your California medical constituents and their friends hope you will oppose Senator Wagner's amendments to H. R. 6635.

CALIFORNIA MEDICAL ASSOCIATION  
By CHARLES A. DUKES, Oakland.

*President,*

HARRY H. WILSON, Los Angeles,  
*President-Elect.*

GEORGE H. KRESS, San Francisco,  
*Secretary.*

\* \* \*

## California Roster of U. S. Senators and Representatives\*

### U. S. Senators

Hon. Hiram W. Johnson (San Francisco).  
Hon. Sheridan Downey (Atherton).

### U. S. Representatives

1st District: Hon. Clarence F. Lea (Santa Rosa).  
2nd District: Hon. Harry L. Englebright (Nevada City).  
3rd District: Hon. Frank H. Buck (Vacaville).  
4th District: Hon. Franck R. Havenner (San Francisco).  
5th District: Hon. Richard J. Welch (San Francisco).  
6th District: Hon. Albert E. Carter (Oakland).  
7th District: Hon. John H. Tolan (Oakland).  
8th District: Hon. Joseph V. Anderson (San Juan Bautista).  
9th District: Hon. B. W. Gearhart (Fresno).  
10th District: Hon. A. J. Elliott (Tulare).  
11th District: Hon. Carl Hinshaw (Pasadena).  
12th District: Hon. H. Jerry Voorhis (Valley Center, San Dimas).  
13th District: Hon. Charles Kramer (Los Angeles).  
14th District: Hon. Thomas F. Ford (Los Angeles).  
15th District: Hon. John M. Costello (Hollywood).  
16th District: Hon. Leland M. Ford (Santa Monica).  
17th District: Hon. Lee E. Geyer (Gardena).  
18th District: Hon. Thomas M. Eaton (Long Beach).  
19th District: Hon. Harry R. Sheppard (Yucaipa).  
20th District: Hon. E. V. Isaac (San Diego).

\* These may be addressed thus: Hon. (Name), Congressman from California, The Capitol, Washington, D. C.

**Further Comment Concerning S. 1620 and H. R. 6635****I.**

*Senator Wagner's Health Bill, S. 1620*, according to the chairman of the subcommittee having it under consideration, will not be reported to the Senate during the current session of Congress.

**II.**

Senator Wagner has therefore given notice of *certain amendments that he proposes to offer to another bill, H. R. 6635*, now pending in the Senate and certain of enactment during the current session of Congress, in order to accomplish some of the objectives that he sought when he introduced his Health Bill. *One of these amendments proposes the establishment of a nation-wide medical service under the Social Security Board* that seems to go farther toward the centralization in Washington of medical supervision and control than anything proposed in the Health Bill and to afford an easier nucleus around which to organize an all-inclusive, nation-wide, Federal medical service. The proposed amendment referred to is as follows:

"Section 207. . . .

"(b) The (Social Security) Board may make provisions for furnishing of medical, surgical, institutional, rehabilitation, or other services to individuals entitled to receive primary disability benefits if such services may aid in enabling such individuals to return to gainful work. Such service shall be furnished by qualified practitioners through governmental and nongovernmental hospitals and other institutions qualified to furnish such services; provided that nothing shall authorize the construction of any such hospitals or other institutions; provided further, that expenditures for the purposes of this subsection shall not, in any fiscal year, exceed two percentum of the total amount which the Board estimates will be expended during such fiscal year for the payment of benefits under subsections (d) and (e) of Section 202. . . .

For convenience, the amendments stated above will be referred to hereafter as the "*National Medical Service Amendment.*"

**III.**

The primary parliamentary advantages that Senator Wagner may derive from the procedure that he has now adopted are as follows:

1. H. R. 6635, into which he proposes to incorporate his National Medical Service Amendment, stated above, has already passed the House of Representatives and is now pending before the Committee on Finance of the Senate. That committee did not participate in the hearings on Senator Wagner's Health Bill, S. 1620, and has no convenient access now to the evidence given before the Senate Committee on Education and Labor when that bill was under consideration by that committee, since that evidence has not yet been published. *In view of the pressure for an early adjournment of Congress, it is hardly possible that the Senate Committee on Finance will hold hearing on its own account on Senator Wagner's National Medical Service Amendment.* If it acts on the amendment, which it may or may not do, it may have to without full knowledge of the situation. If, without action by the committee, Senator Wagner offers his amendments on the floor of the Senate, the committee and the several members of it will obviously be at a disadvantage in debating the subject with Senator Wagner, who not only has given extensive personal consideration to the matter but who has at his immediate command the various officers of the Federal Government who seem to be interested in the establishment of such a service as Senator Wagner proposes.

2. If H. R. 6635, with Senator Wagner's National Medical Service Amendment incorporated in it, is enacted by the Senate and returned to the House of Representatives, *the House, in view of the pressure now being brought for an early adjournment, will have scant time in which to study the new legislation.* H. R. 6635, into which Senator Wagner proposes to incorporate his National Medical Service Amendment, deals primarily with old age and unemploy-

ment benefits. It was formulated by the Committee on Ways and Means of the House of Representatives after prolonged hearings, from which discussion and consideration of the health and medical aspects of the Social Security Act were excluded. On the return of the amended bill, the House might either vote to accept the Senate amendments or refer the entire bill to a conference committee. *Such a committee is made up of senators and representatives especially appointed for that purpose. Its deliberations are in executive session and its report is privileged and not open for amendment.* Because of those facts and because of the probably more extensive acquaintance that the Senatorial members of such a committee would have with the subject matter of Senator Wagner's National Medical Service Amendment, because of the consideration given to it in the Senate Committee on Education and Labor and possibly on the floor of the Senate, their views might carry greater weight than those of the conferees from the House of Representatives, who had had no time to consider the subject.

**IV.**

*In Senator Wagner's Health Bill, S. 1620, it is proposed that the Social Security Board be authorized to coöperate with the several states in establishing state medical services.* Such authority carries with it authority on the part of the Board to determine whether any proposed state medical service is or is not satisfactory. If the Social Security Board determines that it is not satisfactory, then the state is not to receive Federal aid. If Federal aid is granted, and if at any time the Social Security Board determines that the operations of the state service are not in accordance with the agreed plan, Federal aid may be withdrawn. Obviously, under such legislation the Social Security Board might easily impose on the several states any form of state medical service that it favored, under penalty of denial of Federal financial aid if the state set up a service of which the Board did not approve.

*Under the national medical service proposed by Senator Wagner's amendment, the Board would be in supreme control throughout the states. The states would have no voice in the management of the proposed service.* Neither would they be called on to pay any part of the cost. An examination of Section 202(d), proposed as an amendment by Senator Wagner, gives some idea of the extent of the service proposed. The amount to be expended for the maintenance of such services, as stated in the amendment itself, is vague, and whether it would, even under the most favorable conditions, cover the cost of an effective service, no one can tell. If it does not, Congress might be called on to authorize larger expenditures, or the medical corps throughout the country might be called on to render all necessary services for whatever amount might be available.

**V.**

*Senator Wagner's proposed amendment to H. R. 6635 would set up, if enacted, a national medical service for the benefit of a limited group of employees of private industry throughout the entire United States. Excluded from the hypothetical benefits of that service would be: farmers and farm labor, domestic service, professional men and women, and a multitude of persons engaged in commerce, the arts, and trades on their own account. And yet the expenses of the service are apparently to be paid out of the general revenues of the country, to which every inhabitant contributes, either directly as a taxpayer or indirectly as a consumer. It requires no depth of insight to see that a revolutionary project of this kind requires more study and consideration than it can receive as a newly proposed amendment to a lengthy bill of which it is not an essential feature within the few days that now remain before the adjournment of Congress.*

THE WAGNER NATIONAL MEDICAL SERVICE AMENDMENT TO H. R. 6635 SHOULD BE OPPOSED.



# C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

## COMMITTEE ON PUBLIC RELATIONS

### Minutes

Minutes of the meeting held in the offices of the Association, Room 2004, 450 Sutter Building, San Francisco, Saturday, July 22, 1939, at 10:00 a. m.

#### 1. Call to Order.

The meeting was called to order by Chairman Reinle, with the following members present: President Charles A. Dukes, President-Elect Harry H. Wilson, and the chairmen of the following committees: Roy E. Thomas, Committee on Health and Public Instruction; J. Norman O'Neill, Committee on Hospitals, Dispensaries and Clinics; Donald Cass, Committee on Industrial Practice; George G. Reinle, chairman, Committee on Medical Defense; John H. Graves, Committee on Medical Economics; George D. Maner, Committee on Membership and Organization; Dwight L. Wilbur, Committee on Postgraduate Activities; George H. Kress, Secretary-Treasurer.

Absent: Doctors A. R. Kilgore, chairman Cancer Commission, and J. B. Harris, chairman Committee on Public Policy and Legislation.

#### 2. Minutes.

It was moved by Dwight L. Wilbur, seconded by J. Norman O'Neill, that the minutes of the June 17, 1939, meeting of the Public Relations Committee be approved. Carried.

#### 3. Budget.

The Association's Secretary stated that the budget under which the work of the Department of Public Relations was carried out was that adopted at Pasadena on May 11, 1938, which permitted expenditures up to a total of \$3,000. Secretary Kress reported that allocations from the budget allowance to date included the following: \$81.89 for photographs of the Association's Cancer Exhibit at the Golden Gate Exposition for display at the Scientific Exhibit division of the recent Del Monte annual session; \$78.49 for transportation expense of the Committee's members; and minor postage and stationery expenses.

#### 4. Basic Science Act.

Donald Cass, chairman of the Southern Subcommittee of the Basic Science Act presented his written report for the information of the members of the Committee on Public Relations. (For reference items, see minutes of Council and of Committee on Public Relations, CALIFORNIA AND WESTERN MEDICINE, July, 1938, pages 46 and 49.)

It was moved by Charles Dukes, duly seconded, that the report be held over for general discussion after presentation of the report of the Northern Subcommittee.

Dwight L. Wilbur, chairman of the Northern Subcommittee, presented the report of his committee, based on the model basic science act prepared by the American Medical Association.

Discussion was then had, with particular reference to the proposed Board and the subjects to be included in the examinations for qualifying certificates of the basic science board.

It was agreed that the subcommittees should proceed with their studies, along the lines of the submitted reports, and

Dr. Dwight Wilbur was delegated to present the tentative drafts to the legal counsel of the Association, Mr. Hartley Peart; and that a tentative report be made available for submittal at the next Council meeting.

It was moved by George Maner, seconded by Roy Thomas, that the Committee on Public Relations go on record as feeling that the time is expedient at the State election of November, 1940, to enact a basic science initiative, and that the committee recommend to the Council that this be considered. Carried.

#### 5. WPA Procedures.

Secretary Kress stated that, in accordance with the action taken at the June 17 meeting of the Committee on Public Relations, he had notified Mr. Bartel Harvey of the WPA that he had been appointed as the Association's representative in Northern California to review the reports of the WPA with reference to an equitable distribution of medical care being furnished under the WPA's projects. Secretary Kress reported that his preliminary survey of the report showed that the division of work had seemingly been as equitable as could be expected under conditions existing.

George Maner reported that he had taken up the matter in Los Angeles and that the Los Angeles County Medical Association would act as the clearing house for the eight counties in Southern California; that the reports would be sent to the various county society secretaries and that they would then be returned to the Los Angeles County Medical Association, where a composite report would be prepared for submission to the WPA's southern representative. Doctor Maner stated that, to date, the distribution in Southern California appeared fairly equitable; taking into consideration the fact that in isolated communities, in many instances, medical service was limited to one or two doctors.

It was moved by Norman O'Neill, seconded by Dwight Wilbur, that Doctors Kress and Maner continue to serve in the WPA work until further instruction. Carried.

#### 6. Wagner Health Legislation.

Secretary Kress stated that U. S. Senators and Representatives had been contacted and informed of the dangers in S. B. 1620 and H. R. 6635, known as the Wagner Health Legislation.

Secretary Kress suggested that marked copies of the July issue of CALIFORNIA AND WESTERN MEDICINE be sent to California Congressmen with an informative letter of transmittal.

It was moved by George Maner, seconded by Norman O'Neill, that the proposed letter be authorized. Carried.

#### 7. Legislation.

Mr. Ben Read, at the suggestion of Doctor Harris, having been invited to attend the meeting, reported on the public health and medical bills submitted to the Legislature during the 1938-1939 session, recently adjourned. Mr. Read stated that a written report would be submitted.

#### 8. Premarital Legislation—Doctor Lee's Letter.

The Secretary presented a letter from Dr. Russel V. Lee of Palo Alto, in which it was suggested that the physicians of California might agree to give examinations falling under the new premarital legislation without cost to persons examined.

After discussion of the subject and the principles involved, it was moved by Harry Wilson, seconded by George Maner, that the Committee inform Doctor Lee that it believed the members of the California Medical Association were in accord with the new law, but that, as regards gratuitous professional services to citizens coming under the provisions of the act, the same general principles would apply as in other lines of professional work, namely, that individual physicians, when called upon for services in-

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman, and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

volved, would be happy to take into consideration the financial background, making reductions in average fees, if conditions so indicated; and further, that the matter of fee rates, etc., was one for determination by individual physicians. Carried.

#### 9. Dinitrophenol Law.

The felony penalty provided in the new dinitrophenol law, as printed in the July CALIFORNIA AND WESTERN MEDICINE, on page 7, was discussed and the Secretary was authorized to continue publicity in regard thereto.

#### 10. Chiropractic Initiative.

Secretary Kress reported that the Chiropractic Initiative was now in the hands of the Attorney-General, awaiting decision on whether it should be given a place on the special November 7 election ballot, and that as soon as copies were available they would be sent to the component county societies for consideration.

#### 11. Committee on Public Health Education.

President-Elect Wilson reported informally on the discussion that had taken place at the meeting of the Committee on Public Health Education, and stated that an informal letter would be sent to all members of the California Medical Association briefly outlining the plans of the new Committee on Public Health Education, brought into being by the House of Delegates' resolution at the Del Monte session. (June CALIFORNIA AND WESTERN MEDICINE, page 437.)

#### 12. Malpractice Defense.

Discussion was had of the malpractice defense problem.

It was moved by Donald Cass, duly seconded, that committees consisting of Doctors Wilson, Maner, Nuttall, in the south, and Doctors Reinle and Van Den Berg in the north, study the problem and report on the procedures in vogue in the various districts. Carried.

#### 13. Medical Libraries.

The Secretary reported that State appropriations for medical libraries had been discontinued. However, the University of California would continue to furnish library facilities to physicians. Secretary Kress stated a communication thereon, received from Dr. Chauncey Leake, would appear in the Letters department of the August issue of CALIFORNIA AND WESTERN MEDICINE.

#### 14. Medical Broadcasts.

The Secretary reported on a recent conference with Dr. W. W. Bauer of the American Medical Association Bureau of Health Education, and that it might be possible to arrange for some broadcasts over the broadcasting stations of the Golden Gate Exposition.

#### 15. A. M. A. News Press Releases.

For the information of the Committee, Doctor Kress stated that press releases, in the form of the weekly "A. M. A. News" pamphlets, were now being furnished to various newspapers throughout California in an effort to secure desirable medical publicity on the advances in scientific medicine.

#### 16. Date of Meeting.

The date of the next meeting of the Committee on Public Relations was set for Sunday, August 27, 1939.

#### 17. Adjournment.

Other items of an informative nature, having to do with public relations, were informally discussed, after which the meeting adjourned.

GEORGE G. REINLE, *Chairman*.  
GEORGE H. KRESS, *Secretary*.

### HEALTH INSURANCE IN AUSTRALIA IS DEAD\*

As implied in a former letter, national insurance in Australia has retreated still further along its path to oblivion. The prime minister, Mr. Menzies, has officially stated that it is impossible to bring the scheme into operation on September 4, the date to which it was last postponed. Having been so strenuously opposed to the abandonment of the scheme several months ago as to force his resignation from the cabinet, Mr. Menzies no doubt feels it incumbent on him, now that he has been recalled to assume the duties of prime minister, following the death of Mr. Lyons, to attempt further to save the scheme. He has promised to ask parliament to set up a committee of members, with whom will be associated representatives of the medical profession and approved societies and the National Insurance Commission, "to see whether a practical scheme, in which all parties will cheerfully and patriotically coöperate, can be evolved." Appearances, however, are all against the continuance of national insurance. The National Insurance Commission's activities have been largely suspended, the approved societies hover in a state of uncertainty, the royal commission on doctors' remuneration has never been reconstituted since the death of its chairman and has not made a report, and so far there has been inability to arrive at a basis which would insure coöperation from the medical profession. From this it may reasonably be concluded that national insurance in Australia, as at present conceived, is dead.

### PROFESSION WARNED BY NEW ZEALAND GOVERNMENT

National insurance, a much vexed question in Australia, has taken on a serious complexion in New Zealand. The social security act of 1938, which became operative in New Zealand April 1, 1939, makes available to every man, woman and child resident in that country certain benefits, which comprise, first, generous pensions and unemployment insurance, together with medical, hospital and maternity benefits, and the supply of medicine and appliances. Considerable powers have been included in the act to insure adequate services in some country areas that are sparsely populated or isolated. Supplementary benefits will be introduced as opportunity offers, covering such services as specialist and consultant, radiologic and laboratory, home nursing and domestic, optical and dental. There is immediate provision for the institution of a health education campaign, and the scope of medical research is to be extended. The prime minister, Mr. Savage, has stated that the professional standard of medical men and others giving service has been safeguarded; that care has been taken to insure that the personal relationship of a doctor with his patient is not disturbed; that all citizens are assured of the right to make a free choice of their doctors, and that every doctor will have an opportunity of participating in the service. Despite these assurances, and after the date on which the act was due to operate, the New Zealand branch of the British Medical Association has decided unanimously that the government's scheme for the provision of medical benefits under the act is inadequate and unacceptable and that its members are unable to coöperate in its administration. The members of the branch, it is officially stated, are solidly in favor of an attitude adopted previously by the association—complete opposition to the present scheme, which offers all the people part or limited medical service as against the association's strongly held view that a free and complete service should be provided only for those unable to provide it for themselves. Of a possible 750, only twenty-two doctors in New Zealand have accepted con-

\* By its Australian correspondent, in *Journal of the American Medical Association*, July 8, 1939.



tracts with the government to provide services under the social security act. In reply to the decision of the British Medical Association branch, the prime minister has stated that the government in introducing this legislation had complied with the wishes of the people. Last year a general election was won almost entirely on the question of social security, the government being returned with an overwhelming majority. The government, therefore, would make the best arrangements possible to give effect to those wishes. The minister for health in New Zealand has stated that, if the medical profession under the leadership of the British Medical Association is determined to persist in its opposition, the government will have no option but to alter the whole basis of service and proceed reluctantly with the establishment of a state medical service to administer the benefits of the social security act. It was recognized that a state medical service would cause considerable disorganization among the medical profession, but the government wished to make clear at this stage the inevitable result of a policy of noncoöperation and opposition.

The waters are troubled. The scheme has officially commenced operation, but deadlock persists between the government and the profession. At present maternity benefits are being provided by twenty-two practitioners and a small number of medical men attached to hospital staffs.—*Journal of the American Medical Association*, July 8, 1939.

### CALIFORNIA STATE BOARD OF PUBLIC HEALTH\*

The chief function of any public health department lies in the prevention and control of communicable diseases. The State Board of Public Health has maintained a policy that permits the provision at all times of expert technical assistance to local health departments whenever and wherever such assistance may be needed. The Board has never attempted to exercise arbitrary control of a local community except in emergencies, nor has it at any time attempted to set up a public health dictatorship in any portion of the State. It has always coöperated with local health authorities and has always rendered assistance whenever called upon. In many instances, when circumstances make it necessary, the Board institutes coöperative services upon its own initiative. Although given broad powers that enable it to control any human being, living or dead, it has never attempted to apply drastic measures that would limit the freedom of the individual unless such limitations were necessary for the protection of the public health.

#### Comparison With Other State Boards

Criticism is made of the State public health organization in California because it does not conform to a certain type of administration that has been adopted in New York, Pennsylvania and other eastern states. It is difficult to understand why California should be expected to establish a plan of organization identical with that of another state. So far as is known, only five large states out of the forty-eight have adopted the type of state public health organization recommended.

New York, Pennsylvania, and other states, many years ago, established state hospitals for the treatment of tuberculosis. Bills were introduced in the Legislature that would require state tuberculosis hospitals to be established in California. Such institutions would have been organized except for the opposition of the State Board of Public Health. The State tuberculosis hospitals in other states cost millions of dollars annually for their maintenance. The plan of subsidizing county hospitals in California has enabled the provision of the best of facilities for the treatment of tuberculosis and at a minimum of expense. Actually, the State Board of Public Health, through its pro-

gram in the control of tuberculosis, has saved the State many millions of dollars that might otherwise have been expended needlessly. California must consider local conditions, economic, racial and sociological, in the solution of its public health problems.

Criticism is also made to the effect that the State public health organization of California is lacking because California does not spend as much for public health administration as does Alabama. It must be remembered that California does not have a large colored population as does Alabama. The sociological conditions that prevail in the two states are not comparable. To be sure, California has racial problems to encounter such as those that exist in the Mexican population and in some of the Oriental groups. Nevertheless, the California record in the control of communicable diseases and the maintenance of public health is equal to that of Alabama and in many respects the record is bettered considerably. This has been accomplished without unnecessary expenditure of State funds and without placing a heavy burden upon the taxpayers of this State.

#### Tuberculosis

The control of tuberculosis in California is regarded as a remarkable achievement. No state in the Union provides better facilities for the treatment of its tuberculous citizens. Through coöperation with the counties, under provision of a State subsidy administered by the State Board of Public Health, more than 6,500 beds are maintained in the various counties for care of the tuberculous who are unable to pay for treatment. The California tuberculosis death rate has been reduced, under State auspices, from 218 per 100,000 population in 1906 to 60.6 per 100,000 population in 1938. In spite of the influx of Mexicans, who are particularly susceptible to tuberculosis, in spite of the hordes of advanced cases imported from other states, this enviable record has been achieved. The proponents of the bills to reorganize the State Department of Public Health make no mention of this truly remarkable achievement, but devote all of their energies toward insistence that more extended facilities be provided for the detection of cases in individuals throughout the State. In other words, it would seem that this group that opposes the State Board of Public Health would have the State health organization take over all local health departments in order that every case of tuberculosis in California might be discovered by representatives of the State health organization rather than the local health officers. It would be comparable for the State to carry on police activities for all communities of California and abolish all local police departments.

#### Venereal Diseases

The California State Board of Public Health organized in 1917 the first state bureau of venereal diseases that was ever established anywhere in the United States. This bureau functioned efficiently until 1920, when public interest in the control of venereal diseases waned and the Legislature refused to appropriate funds for the continuation of the bureau. The professors who oppose the State Board of Public Health criticize the Board because no direct State activities in the control of venereal diseases were undertaken by a special bureau during the period 1920 to 1937 when the Bureau of Venereal Diseases was reorganized immediately following the establishment of Federal social security funds for this purpose. It should be remembered that the State Board of Public Health is not able to carry on its activities without funds. Its employees must live and if the public does not provide funds for activities in the protection of its health such activities must cease. Whenever funds have been made available for the direct control of the venereal diseases in this State the Board has always exerted itself fully toward the establishment of a program in their control. This criticism of the Board is unwarranted and is without any factual basis for support. As a matter of fact, limited activities in venereal disease control

\* In this issue, see on page 76. In July issue, see editorial on A. B. 2107, on page 1.

have been carried on continuously even though a special bureau for conducting the work was not existent.

It is believed that the California State Department of Public Health, as developed by the State Board of Public Health, constitutes an organization well adapted to the public health needs of the State. It would seem that consideration has been given to all essential factors and that the program established by the Board accomplishes adequate results in the maintenance of the public health.

### SOME CALIFORNIA STATISTICS

*In thirty years the California State Board of Public Health has:*

*Helped to reduce the typhoid death rate from 32 per 100,000 to 0.9 per 100,000.*

*Reduced the tuberculosis death rate from 218 per 100,000 to 60.6 per 100,000.*

*Reduced the diphtheria death rate from 12 per 100,000 to 1.5 per 100,000.*

*Reduced the infant death rate from 160 per 1,000 live births to 44 per 1,000 live births.*

*Reduced the maternal mortality rate from 12.7 per 1,000 live births to 3.3 per 1,000 live births.*

*And since 1926*

*Infant mortality rate for white race has been reduced from 47.9 to 36.4—(24 per cent).*

*Infant mortality rate for Mexicans has been reduced from 144 to 87.6—(39 per cent).*

*Infant mortality rate for all other races has been reduced from 66.4 to 54.3—(17 per cent).*

### SONOMA, SOLANO, NAPA, AND MARIN COUNTY MEDICAL SOCIETIES HOLD A JOINT MEETING

Members of the Sonoma, Solano, Napa, and Marin County Medical Societies held their annual mid-summer reunion at Sonoma Grove on Saturday evening, July 15, a large attendance being present. Dr. D. C. Oakleaf of the Sonoma society presided, in association with Presidents Harry H. Hensler of Marin, Ream S. Leachman of Solano, and Alexander H. McLeish of Napa County Medical Societies.

Councilor Henry S. Rogers of Petaluma acted as toastmaster, introducing the guest speakers: Charles A. Dukes, President of the California Medical Association; George G. Reinle, Chairman of the California Medical Association Committee on Public Relations; Association Secretary George H. Kress, and Mr. Ben Read of the Public Health League of California. Pertinent problems confronting organized medicine were discussed by the speakers, and much interest was shown. An excellent dinner, with the delightful wines of the district, was served.

### GROUP MEDICAL CARE PLAN INCORPORATED IN MICHIGAN

Articles of incorporation for "Michigan Medical Service" were filed Friday with the commissioner of insurance by officials of the Michigan State Medical Society. Michigan Medical Service embodies the voluntary group medical care plan which is the result of ten years' study and work by the Michigan Medical Society. An enabling act in the 1939 legislature, to permit this type of nonprofit service to the people, was sponsored by the medical profession of this state. The incorporators of Michigan Medical Service are A. S. Brunk, Detroit; Henry R. Carstens, Detroit; Burton R. Corbus, Grand Rapids; L. Fernald Foster, Bay City; Wilfrid Haughey, Battle Creek; William A. Hyland, Grand Rapids; Henry A. Luce, Detroit; Vernor M. Moore, Grand Rapids; Ralph H. Pino, Detroit; Philip A. Riley, Jackson; Paul R. Urmston, Bay City.

## COUNTY SOCIETIES

### MENDOCINO-LAKE COUNTIES

The meeting of the Mendocino-Lake County Medical Society was called to order by President Robert B. Smalley, on June 17, at the Howard Memorial Hospital in Willits.

The following members were present: Doctors Babcock, Smalley, Cushman, Toller, Gericke, Cleland, Van Allen, Kirwin, Scudder, Perry, Bramkamp, and Wagner. The guest of the evening was Dr. Henry S. Rogers, District Councilor of Petaluma, who spoke of problems before the State Association. Doctor Rogers reviewed the actions taken in the State Legislature, with special reference to the Compulsory Health Insurance Bill; and in reporting on the Annual Convention at Del Monte, he further discussed the special assessment made at that time on active members. All members were urged to attend the district meeting to be held at Sonoma, July 15, 1939, when an election will be held for Deputy Administrator of California Physicians' Service for this district.

The late Dr. Samuel Rea, of Ukiah, who died on June 8, 1939, was eulogized by Dr. Raymond Babcock. A resolution to send a copy of the eulogy to Dr. Frank Makinson of the California Medical Association, and one to the family of Doctor Rea, was adopted.

A practical demonstration of the Neufeld method of typing of the pneumococci was given, and this was followed by the showing of a pneumonia film prepared by Doctor Bullowa of the Harlem Hospital. Both demonstration and film were made possible for the Society through the efforts of Doctors Babcock and Smalley.

Upon the invitation of Dr. H. O. Cleland, it was decided that the next meeting would be held August 19, at 8 p. m., at the County Hospital at Ukiah. The meeting was then adjourned.

DALLAS L. WAGNER, *Secretary*.

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### SAN BERNARDINO COUNTY

The regular meeting of the San Bernardino County Medical Society was held in the San Bernardino County Charity Hospital on June 6, 1939. It was called to order by the President, Doctor Williams. About sixty members and guests were present.

Dr. Walter Pritchard made a few remarks regarding a morphin addict and the trick he used to obtain morphin; and he warned members to be on their guard against him.

Doctor Williams spoke briefly regarding a proposed public health nurse for the City of San Bernardino. Doctor Landon, City Health Officer, was not present, but it was felt the matter was a local problem, and not within the jurisdiction of the Society.

It was moved and seconded that the Secretary wire the Society's thanks to our State legislators, Swing, Andreas, and Corwin, for their support during the past session of the Legislature. Passed.

The following applications for membership were approved: Dr. Samuel Ching, Victorville, and Dr. Joel Gibbons, Barstow.

The address of the evening, on *California Physicians' Service*, was then given by Dr. E. Vincent Askey, Los Angeles, Assistant Medical Director of California Physicians' Service, and this was followed by remarks by Dr. C. L. Emmons, District Councilor, and President Williams.

Following his informal talk, Doctor Askey answered many questions regarding the new California Physicians' Service.

The meeting adjourned at 9:30 p. m., and after that refreshments were served. ARTHUR E. VARDEN, *Secretary*.



## CHANGES IN MEMBERSHIP

## New Members (17)

*Butte County*

Hollis Layton Carey

*Fresno County*

G. G. Daggett

Harvey E. Starr

M. Kanai

*Imperial County*

Henry Forcher

Alfred Sand

*Merced County*

Avery E. Sturm

Eugene E. Willison

*Monterey County*

Kyoichi Iwasa

*Sacramento County*

A. A. Atkinson

Lewis Specker

*San Bernardino County*

Samuel Ching

*San Diego County*

Harry Wallace Hartzell

Frank H. Robinson

Charles S. Marsden, Jr.

*Santa Clara County*

Lois P. Todd

*Sonoma County*

H. P. Howard

## Transferred (1)

William G. Patton, from San Joaquin County to San Bernardino County.

## In Memoriam

**Botsford, Mary Elizabeth.** Died at San Francisco, June 18, 1939, age 74. Graduate of the University of California Medical School, San Francisco, 1896, and licensed in California the same year. Doctor Botsford was a retired member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

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**Burke, Garry Richman.** Died at Sonoma, June 20, 1939, age 44. Graduate of the University of Buffalo School of Medicine, 1918. Licensed in California in 1929. Doctor Burke was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✦

**Coulter, Herbert Mackay.** Died at South Pasadena, June 16, 1939, age 62. Graduate of the University of Minnesota Medical School, Minneapolis, 1903. Licensed in California in 1904. Doctor Coulter was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✦

**Cross, William Walter.** Died at Berkeley, July 12, 1939, age 66. Graduate of the Washington University School of Medicine, St. Louis, 1897, and licensed in California the same year. Doctor Cross was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✦

**Edson, Philips Josiah.** Died at Pasadena, July 6, 1939, age 43. Graduate of the University of California Medical School, Berkeley, 1924. Licensed in California in 1925. Doctor Edson was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

**Mangan, Patrick Joseph.** Died at San Francisco, May 31, 1939, age 74. Graduate of Cooper Medical College, San Francisco, 1896, and licensed in California the same year. Doctor Mangan was a member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

✦

**Natzler, Adolf.** Died at Los Angeles, July 4, 1939, age 47. Graduate of Ludwig-Maximilians- Universität Medizinische Fakultät, Munich, Bavaria, 1907. Licensed in California in 1935. Doctor Natzler was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✦

**Rea, Samuel Leroy.** Died at Ukiah, June 8, 1939, age 65. Graduate of Cooper Medical College, San Francisco, 1896, and licensed in California the same year. Doctor Rea was a member of the Mendocino-Lake County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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## OBITUARY

Mary E. Botsford, M. D.

1865-1939

On June 18, 1939, we lost a retired member of our Society in the death of Dr. Mary Botsford. Born in San Francisco March 25, 1865, Doctor Botsford attended the Presentation Convent, later graduating from the University of California Medical School in 1896. She was appointed to the staffs of the University of California and Children's Hospitals of San Francisco, served as contract surgeon in the Medical Corps of the United States Army during the war, represented the University of California at the Congress of Anaesthetists in England in 1926, and at the British Medical Association meeting in Canada in 1930.

During 1931 she was given her appointment as Clinical Professor of Anaesthesia in the University of California Medical School, and elected President of the Associated Anaesthetists of the United States and Canada at their Congress in New York City. She published a number of articles on anaesthesia, including "Anaesthesia in Urologic Surgery," 1927; "Anaesthesia in Infant Surgery," 1935; "Pre-anaesthetic Drugs," 1937; and others.

Like so many of us in the medical profession, Doctor Botsford rode a hobby. Her great devotion to gardening bringing her untold pleasure and relaxation throughout the years. She is survived by a niece, Mrs. Elizabeth Stanley, to whom we have extended our sympathy.

H. M. F. BEHNEMAN.

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*Parathyroid Tetany Yields to Recently Discovered Drug.*—After all other methods of treatment had failed, a case of parathyroid tetany was dramatically brought under control by use of a recently discovered drug, dihydrotachysterol, H. M. Margolis, M. D., Pittsburgh, and Gilbert Krause, M. D., Braddock, Pennsylvania, report in *The Journal of the American Medical Association*.

Parathyroid tetany is a comparatively rare condition due to abnormal calcium metabolism following removal of the parathyroid glands. It occurs in about fifteen out of one thousand cases. Dihydrotachysterol is a new drug, still in the experimental stage, which may prove eventually to be a specific in its treatment.

The authors conclude their paper with the declaration that "the therapeutic effect of dihydrotachysterol in the control of parathyroid insufficiency in our case was not less dramatic than that of insulin in the control of diabetes."

# THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. FREDERICK N. SCATENA.....President  
MRS. WILLIAM C. BOECK.....Chairman on Publicity

## Official Notices

*State Board Meeting.*—The President, Mrs. Frederick N. Scatena, has called a meeting of the State Board of the Woman's Auxiliary to be held on Friday, September 15, 1939, at the Woman's Athletic Club, San Francisco. All presidents of county auxiliaries are invited to attend this meeting.

State Board members for 1939-1940 are: President, Mrs. Frederick N. Scatena of Sacramento; President-Elect, Mrs. A. E. Anderson of Fresno; First Vice-President, Mrs. Harry O. Hund of San Rafael; Second Vice-President, Mrs. Frank Baxter of Alameda; Recording Secretary, Mrs. G. Wendell Olson of Fullerton; Corresponding Secretary, Mrs. G. A. Spencer of Sacramento; Treasurer, Mrs. C. G. Stadfield of Los Angeles; Councilors-at-Large: Mrs. H. E. Henderson of Santa Barbara, Mrs. F. G. Lindemulder of San Diego, Mrs. Harry Oliver of San Francisco, and Mrs. William C. Boeck of Los Angeles.

District Councilors: Mrs. F. G. Lindemulder of San Diego for First District; Mrs. Horace H. McCoy of Long Beach for Second District; Mrs. Richard McGovney of Santa Barbara for Third District; Mrs. J. R. Walker of Fresno for Fourth District; Miss Julia Koenecke of Salinas for Fifth District; Mrs. Eugene Kilgore of San Francisco for Sixth District; Mrs. Charles Hall of Oakland for Seventh District; Mrs. Alvin A. Brown of Sacramento for Eighth District; and Mrs. Frank A. Lowe of San Rafael for Ninth District.

The chairmen of standing committees appointed from this group are: Membership and Organization, Mrs. Harry O. Hund; Program and Health Education, Mrs. Frank Baxter; Finance, Mrs. A. E. Anderson; Public Relations, Mrs. Harry Oliver; Editor and Publicity, Mrs. William C. Boeck; *Hygeia*, Mrs. H. E. Henderson; Mrs. F. E. Coulter of Santa Ana, Historian; and Mrs. Hobart Rogers of Oakland, Parliamentarian.

## In Memoriam

We regret to announce the death of Mrs. A. A. Arehart, President of the Woman's Auxiliary to the Monterey County Medical Society. We shall long remember her smiling face as she took our registrations at the Convention, spoke her words of welcome at the first meeting, and added her bit to the hospitality that made us all feel at home at Del Monte.

## Minutes of the Executive Committee of the Woman's Auxiliary to the California Medical Association\*

The meeting of the Executive Committee of the Woman's Auxiliary to the California Medical Association was called to order at 9:45 p. m., April 30, 1939, at

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. William C. Boeck, State Chairman on Publicity, 712 North Maple Drive, Beverly Hills. Brief reports of county auxiliary meetings will be welcomed by Mrs. Boeck and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notices.

\* Minutes of meetings as printed contain only a digest or mention of certain major items.

Hotel Del Monte, in Del Monte, California, the President, Mrs. Clifford Andrews Wright, presiding. . . .

The Treasurer's Report was as follows:

Balance, Checking Account, April 30, 1939.....	\$ 981.26
Balance, Savings Account, April 30, 1939.....	1,060.67
Balance, Library Account, April 30, 1939.....	38.64
Total.....	\$2,080.57

. . . Mrs. Anderson moved that the Treasurer's Report be accepted as read. Motion seconded and carried.

The Membership Chairman, Mrs. A. E. Anderson, reported that two new counties have been organized: Ventura and Stanislaus. . . .

The Library report was read by the Secretary in the absence of Mrs. Arthur T. Newcomb. This report contained two propositions in which it was suggested to further the use of the Library.

MRS. G. WENDELL OLSON, *Recording Secretary*.

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## Pre-Convention Meeting of the Board of Directors of The Woman's Auxiliary to the California Medical Association

The Board of Directors of the Woman's Auxiliary to the California Medical Association was called to order by the President, Mrs. Clifford A. Wright, at 9:10 a. m., Monday, May 1, 1939, in the Tower Room at Hotel Del Monte, Del Monte, California. . . .

*Reports.*—Mrs. Lawrence M. Knox, Convention Chairman, reported on final details for entertainment of members and guests.

### Balance in Treasury:

Checking Account .....	\$ 981.26
Savings Account .....	1,060.67
Library Fund .....	38.64

The Secretary then read the Auditor's Report, which is appended to these minutes. Mrs. Walker moved this report be accepted. Motion seconded and carried.

### Reports of Standing Committees:

*Finance.*—Mrs. Frederick N. Scatena, read the proposed budget for next year which showed a decrease of last year, the total sum of \$1,190. Mrs. J. R. Walker moved that the budget be left as of last year, \$1,200. Motion seconded and carried.

*Membership and Organization.*—Mrs. A. E. Anderson contacted all counties not organized and organized. Asked organized counties to make an effort to increase their membership. Two new counties organized, Ventura and Stanislaus. The state shows a decrease of 9.7 per cent membership. Merced County greatest increase which is 150 per cent.

*Program and Health Education.*—Mrs. George Calvin contacted the chairmen of all counties. Sent outlines of programs to be followed. Fine reports from all counties. Programs from National, Regional, and State followed.

*Editor and Publicity.*—Mrs. Fred H. Zumwalt's report read by the Secretary.

*Hygeia.*—Mrs. Harold Trimble reported most successful year. Subscription increase of 50 per cent over last year.

### Reports of District Councilors:

*First District.*—Mrs. F. G. Lindemulder visited Riverside and Orange Counties. Contacted San Bernardino County and auxiliary probably will be organized next year.

*Second District.*—Mrs. Horace H. McCoy, entire County of Los Angeles 1938 and 1939, 553 members with an average of 125 attendance at meetings. . . .

Mrs. Lawrence Knox moved that, after report of Councilor from the Second District, all reports of District Councilors and County Presidents be accepted and left to



be read in the House of Delegates. Motion seconded and carried.

#### *Reports of Special Committees:*

**Library.**—Mrs. Arthur T. Newcomb's report read by Secretary. The report was as follows: Had six calls for books and four for plays. Library has not been active. Books have depreciated in value from 20 per cent to 30 per cent in the last two years. Value of the library now about \$70 to \$85.

#### *President's Announcements:*

**New Business.**—Mrs. Lawrence Knox read a letter from Mr. Howard Adams, Sales Manager, Morning Milk Company, Stockton, California, in which he proposed a contest. Mrs. Scatena moved that we leave this matter up to the Advisory Council. Motion seconded and carried. . . .

#### *Convention Rules:*

Mrs. H. E. Henderson read the rules as follows:

1. All visitors are welcome to general meetings.
2. No newspaper reporters are admitted to meetings.
3. Accredited delegates and members of the Board only have the privilege of voting.
4. Debate is open to Delegates, Alternates, Members of the Board of Directors and Members-at-Large.
5. No member shall speak in debate more than twice on the same subject, or longer than three minutes, without the consent of the assembly.
6. Members must obtain the floor by giving name and the name of their auxiliary, before making a motion or speaking from the floor.
7. Delegates must be seated by districts.
8. Alternates shall not be seated with Delegates except when representing absent Delegates.

#### *Recommendations:*

Mrs. Zumwalt made the following recommendations:

1. That each county in rotation edit the *Courier* for one year.
2. That each county take care of its own mailing of *Courier*.
3. That each county have Secretary send in names of new officers as soon as elected.
4. That each county president make her appointments as soon after election as possible and send such information to State Secretary.

Mrs. Scatena moved that the first recommendation be accepted and referred to the assembly for final action. Motion seconded and carried. Mrs. Anderson moved that the second recommendation be presented from the Board to be read at the House of Delegates and turned over to the new Board. Motion seconded and carried.

Mrs. A. T. Newcomb made the following recommendation:

That all books belonging to the State Library will be given intact to the Los Angeles County Medical Library as a memorial for the late Dolores Barrow.

Mrs. Scatena moved that the Board approve Mrs. Newcomb's recommendation and refer it to the assembly for final action. Motion seconded and carried.

The President recommended to the Board the Constitution and By-Laws of Ventura County which she had received. Mrs. A. E. Anderson moved that the Constitution be accepted as corrected by the Parliamentarian. Motion seconded and carried.

#### *Nominations for Nominating Committee:*

Mrs. Scatena nominated Mrs. Hund.

Mrs. Walker nominated Mrs. Markthaler.

Mrs. Scatena moved that the nominations be closed. Motion seconded and carried. The nominees were unanimously elected.

Mrs. Hund withdraws as Chairman of the Nominating Committee and Mrs. Anderson nominated Mrs. Markthaler

and Mrs. Hund will serve as the second member from the Board.

#### *Minutes:*

The Secretary read the minutes of this meeting, which were accepted as read.

Mrs. Trimble reported that the proposed amendment to Section 1 of Article 9 of the Constitution of the Woman's Auxiliary to the California Medical Association was forty-five days short of becoming effective. Therefore, will be given to the new Board.

The meeting adjourned.

Respectfully submitted,

MRS. G. WENDELL OLSON, *Recording Secretary*.

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#### **Tenth Annual Convention: Woman's Auxiliary to the California Medical Association**

The first meeting of the Tenth Annual Convention of the Woman's Auxiliary to the California Medical Association was called to order at 10:00 a. m., May 2, 1939, at Del Monte Lodge in Del Monte, by the President, Mrs. Clifford A. Wright.

The Invocation was offered by Reverend S. C. Potter; the address of welcome was given by Mrs. A. A. Arehart of Monterey; and the response was given by Mrs. William W. Roblee of Riverside County.

#### *In Memoriam:*

Mrs. Thomas E. Gibson, San Francisco, gave a beautiful tribute to those who have passed away during the past year. A candle ceremony completed the services with a violin solo by Mrs. Milton Shutes, accompanied by Mrs. Elenau Breadwell.

#### IN MEMORIAM

Alameda County: Mrs. R. B. Pensotti, Mrs. Robert Glenn, Mrs. John Stark. Los Angeles County: Mrs. Henry B. Stehman (Pasadena). San Francisco County: Mrs. Martin, Mrs. Otto Pfeuger.

#### *Roll Call:*

By the Secretary, Mrs. G. Wendell Olson.

#### *Convention Chairman:*

Mrs. Lawrence M. Knox gave final details of the entertainment plans.

#### *Credentials:*

Mrs. E. Eric Larson reported following registrations (as of 9:00 a. m., Tuesday):

Officers and State Board Members.....	16
Delegates .....	56
Alternates .....	16
Members and Guests .....	131
Total.....	219

#### REPORTS OF OFFICERS

#### *Report of President:*

Mrs. A. E. Anderson, First Vice-President, took the chair while the President, Mrs. Clifford A. Wright, gave her report. She gave a general survey of the work of the auxiliaries, throughout the year that she visited. In closing left this message that encouraging friendship among the profession and their families is an important part of our work, and that we should be ambassadors of good will and further a kindly feeling among the laity and medical men. Mrs. Hobart Rogers of Oakland moved the report be accepted with deep appreciation and that Mrs. Wright be given a rising vote of thanks. Motion seconded and carried.

#### *Corresponding Secretary:*

The report of Mrs. Eric Larson was read. Mrs. Charles Hall of Oakland moved to accept the report. Motion seconded and carried.

*Treasurer:*

Mrs. Harry O. Hund read her report which showed balances: In checking account of \$981.26; in savings account of \$1,060.67; in library fund of \$38.64.

The report was ordered filed.

*Auditor:*

The report of the Auditor, which was read by the Secretary, showed that the balance in the bank of San Rafael coincided with the Treasurer's report. Mrs. J. R. Walker moved that the report be accepted. Motion seconded and carried.

*Membership and Organization:*

Mrs. A. E. Anderson reported that there are twenty-four counties now organized of which two were organized this year. Fifteen counties unorganized. State showed a decrease of 7 per cent membership. Merced County showed greatest increase, 157 per cent. Mrs. Hyman Miller moved the report be accepted. Motion seconded and carried.

*Program and Health Education:*

Mrs. George Calvin reported on her year's work. Had fine reports from all counties. Program outline followed as given by National, Regional and Mrs. Colby's of last year. Thanks to county program chairmen for splendid coöperation. Found that 20 per cent of meetings were social, fifty per cent self-educational, and 20 per cent public educational. Mrs. Milton Shutes moved that the report be accepted. Motion seconded and carried.

*Finance:*

Mrs. Frederick N. Scatena read the budget proposed for the coming year of 1939-40.

Stationery .....	\$ 100.00
Stenographer and Clerical .....	125.00
Postage .....	60.00
Telephone and Telegraph .....	35.00
Convention .....	150.00
Editor .....	350.00
President's Discretionary Fund .....	275.00
Membership and Organization .....	100.00
Miscellaneous .....	30.00
Total .....	\$1,190.00

*Dues:*

Mrs. Scatena moved that the State dues for the year 1939-40 be \$1.00 as in previous years.

*Public Health Activities:*

Mrs. J. C. Geiger reported that six out of twenty-three responded, all doing splendid work. Mrs. Scatena moved to accept the report. Motion seconded and carried.

*Editor and Publicity:*

Mrs. Fred Zumwalt's report was read by the Secretary. The financial report showed total receipts of \$515, total expenses of \$460.35, leaving a balance of \$54.65 plus 14 cents interest, a total of \$54.79. Mrs. A. A. Alexander moved to accept the report. Motion seconded and carried. Mrs. Harry O. Hund moved that the balance of \$54.79 be deposited to the State's account. Motion seconded and carried.

*Hygeia:*

Mrs. Harold Trimble, *Hygeia* chairman, gave a report of her work and how successful Mrs. Hobart Rogers' plan was to encourage the sale of *Hygeia*. Total in the *Hygeia* account to date, 1938-1939, is 800, last year at this time 527 subscriptions, showing an increase of 50 per cent. Mrs. Carl Benninghoven moved that the report be accepted. Motion seconded and carried.

*Report of Special Committee:*

*Library.* In the absence of Mrs. A. T. Newcomb, her report was read by the Secretary. Library has not func-

tioned as anticipated. To date only six calls for books and four for plays; \$105.84 spent for books since 1926 to date; depreciation in value from 20 per cent to 30 per cent in two years; estimated \$75 to \$85 value of library at present. Mrs. Henderson moved that the report be accepted. Motion seconded and carried.

*Recommendations from the State Board:*

1. The Secretary read Proposition Number 1, recommended by the Board, from Mrs. Newcomb. Mrs. H. E. Henderson moved that we accept Proposition Number 1 for Los Angeles to reimburse the counties for money given to the library. Mrs. Hund moved that the balance of \$38.64 in the library account be closed and applied on reimbursing the counties. Motion seconded and carried.

2. The Secretary read the recommendation to the Board from Mrs. Zumwalt. Mrs. Hobart Rogers moved that this recommendation be referred to the new Board for action. Motion seconded and carried.

*President's Announcement:*

The President announced the Resolutions Committee would be composed of Mrs. Frank Baxter, Oakland; Mrs. Hobart Rogers, Oakland; Mrs. Lawrence Knox, Berkeley.

*Nominating Committee:*

The President announced that Mrs. Edward Markthaler, Santa Barbara, and Mrs. Harry O. Hund, San Rafael, had been elected by the Board as members of the Nominating Committee and asked for nominations from the floor for three other members:

Mrs. William C. Boeck named Mrs. William H. Leake, Los Angeles; Mrs. Frank Baxter named Mrs. Thomas Clark, Alameda; Mrs. G. A. Spencer named Mrs. Norris Jones, Sacramento. Mrs. George Calvin moved that the nominations be closed. Motion seconded and carried.

The meeting adjourned, to be followed by a luncheon in honor of the President, Mrs. Clifford A. Wright.

Respectfully submitted,

MRS. G. WENDELL OLSON, *Recording Secretary.*

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At luncheon the Doane Trophy was presented to Merced County for an increase of 157 per cent in membership.

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The second meeting of the Tenth Annual Convention of the Woman's Auxiliary to the California Medical Association was called to order at 9:50 a. m., May 3, 1939, at Del Monte Lodge in Del Monte by the President, Mrs. Clifford Andrews Wright.

*Credentials:*

Mrs. E. Eric Larson, chairman for Credentials, reported the following registration of 5 p. m., Tuesday afternoon, May 2, 1939: Officers and State Board members, 13; delegates, 54; members and guests, 187; total, 254.

*Minutes:*

The Secretary, Mrs. G. Wendell Olson, read the minutes of the meeting of Tuesday morning, which were accepted after being corrected.

*Report of Historian:*

Mrs. Frank Edwin Coulter report on file.

*Councilors-at-Large:*

Due to the absence of the Councilors-at-Large, Mrs. T. A. Card, Mrs. A. T. Newcomb, Mrs. R. S. Kneeshaw, and Mrs. Fred A. Zumwalt, Mrs. A. A. Alexander moved that the report of the Councilors-at-Large be placed on file. Motion seconded and carried.



*Reports of District Councilors:*

Mrs. Charles Hall moved that the reports be accepted as a whole. Motion seconded and carried.

Mrs. A. A. Alexander moved that the reports be accepted as read and placed on file. Motion seconded and carried.

*County Presidents:*

Mrs. William Boeck moved that the reports of the presidents of county auxiliaries be accepted with appreciation for the great work by the counties. Motion seconded and carried.

*Resolutions:*

The Resolutions Committee, consisting of Mrs. Frank Baxter, chairman, Mrs. Hobart Rogers, and Mrs. Lawrence Knox, presented the following report:

*Resolved*, That the Woman's Auxiliary to the California Medical Association adopt an amendment providing that the widows of members in good standing in the State Medical Association be permitted to affiliate with any County Auxiliary where they reside in California.

After discussion, it was moved by Mrs. Frank Baxter that this resolution be referred to the incoming Board. Motion seconded and carried.

*Resolved*, That the Woman's Auxiliary to the California Medical Association in convention assembled, extend its sincere thanks and most grateful appreciation:

1. To Mrs. Lawrence M. Knox and her committee, also friends of the ladies of Monterey County Auxiliary who are not members of the Association or the Auxiliary, for their untiring efforts and their very gracious manner, who have done much for the success of the session and pleasure of the members and their guests.

2. To Mrs. H. N. Yates, Chairman of the Musicale for the second time, who with her selected groups of artists, Mrs. Gladys Steele, Iris DeLuce, John Teil, and Mischa Myers, contributed to the success of the very delightful evening of music and dancing.

3. To the management and staff of the Hotel Del Monte and Del Monte Lodge for their courtesies.

4. To Rev. Stewart C. Potter of Monterey who asked God's blessing on our sessions.

5. To the Council of the California Medical Association for their support and cooperation throughout the year.

6. To Dr. George H. Kress for courtesies in the publication of the Auxiliary News in CALIFORNIA AND WESTERN MEDICINE.

7. To Monterey *Herald* for its cooperation and able presentation of material pertaining to our annual meeting.

8. To Mrs. Clifford A. Wright, our State President, whose gracious manner which has endeared her to every member of the organization, and to the other members of our State Board who have so ably carried their duties to a successful completion.

9. To Mr. Alexander Eddie for conducting a most instructive and interesting garden tour.

10. To Mr. Theodore Clark as guide to many historic sights in Monterey.

11. That we express our appreciation to Mrs. F. H. Zumwalt for her splendid work in editing the *Courier* for the past two years and tender our regrets that she found it impossible to attend this meeting. Therefore, be it

*Resolved*, That copies of these resolutions be sent by the Recording Secretary of the Convention to the above named to whom we are so deeply indebted, and a copy to be placed on file.

Signed:

Mrs. Frank Baxter

Mrs. Hobart Rogers

Mrs. Lawrence Knox.

Mrs. Frank Baxter moved that these resolutions be adopted. Motion seconded and carried.

*Report of Nominating Committee:*

Mrs. L. E. Markthaler, the chairman of the Nominating Committee, read her report as follows:

President-Elect, Mrs. A. E. Anderson, Fresno; First Vice-President, Mrs. Harry O. Hund, San Rafael; Second Vice-President, Mrs. Frank Baxter, Alameda; Recording Secretary, Mrs. G. Wendell Olson, Fullerton; Treasurer, Mrs. C. G. Stadfield, Los Angeles.

Councilors-at-Large: Mrs. H. E. Henderson, Santa Barbara; Mrs. F. G. Lindemulder, San Diego; Mrs. Harry

Oliver, San Francisco; Mrs. William C. Boeck, Los Angeles.

There were no nominations from the floor.

Mrs. Harold Trimble moved that the nominations be closed. Motion seconded and carried. Mrs. Clifford A. Wright declared them duly elected.

*District Councilors:*

The President called for the nominations for District Councilors.

Third District: Mrs. H. E. Henderson nominated Mrs. R. McGovney, Santa Barbara.

Fifth District: Mrs. M. D. Baker nominated Miss Julia Koenecke, Salinas.

Sixth District: Mrs. H. Oliver nominated Mrs. Eugene Kilgore, San Francisco.

Seventh District: Mrs. Frank Baxter nominated Mrs. Charles Hall, Oakland.

Eighth District: Mrs. G. A. Spencer nominated Mrs. Alvin A. Brown, Sacramento.

Ninth District: Mrs. Bernard J. Conroy nominated Mrs. Frank A. Lowe, San Rafael.

Since there was only one candidate for each office, they were elected.

*Presentations:*

Mrs. Clifford A. Wright presented Mrs. Frederick N. Scatena, President for 1939-1940, who in turn presented her Corresponding Secretary, Mrs. G. A. Spencer. Mrs. Wright introduced each of the newly elected officers and Councilors-at-Large.

*Credentials:*

The Secretary read the final report on registrations: Wednesday morning, May 3, 1939—Officers and State Board members, 14; delegates and alternates, 59; members and guests, 190; total, 263.

*Minutes:*

The Secretary read the minutes of this meeting, which were approved as corrected.

The President thanked the Convention chairman, Mrs. Lawrence M. Knox, for her untiring efforts in making this Convention a success, and Monterey County for its hospitality, and then she expressed appreciation for the cooperation that all officers had given her.

Before declaring the adjournment of the Tenth Annual Convention a telegram was read by the Secretary from the Board of Directors of the Pasadena Branch of the Woman's Auxiliary to the Los Angeles County Medical Association.

Mrs. A. A. Alexander moved that the Secretary be given a rising vote of thanks for her untiring work. Motion seconded and carried.

There being no further business, the Tenth Annual Convention adjourned.

Respectfully submitted,

MRS. G. WENDELL OLSON, *Recording Secretary*.

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*Minutes of the Post-Convention Board Meeting*

The first Post-Convention meeting of the Board of Directors of the Woman's Auxiliary to the California Medical Association met at Del Monte Lodge, Del Monte, California, May 3, 1939, after luncheon honoring the incoming President, Mrs. Frederick N. Scatena. . . .

The constitutional quorum of eleven being present, the meeting proceeded. . . .

The following appointments were made: Mrs. Harry O. Hund, chairman, Membership and Organization; Mrs. Frank Baxter, chairman, Program and Health Education; Mrs. A. E. Anderson, Finance; Mrs. Harry Oliver, chairman, Public Relations; Mrs. Eugene Kilgore, chairman,

Public Health; Mrs. William Boeck, Editor and Publicity; Mrs. H. E. Henderson, chairman, *Hygeia*; Mrs. F. E. Coulter, Historian; Mrs. Hobart Rogers, Parliamentarian.

Mrs. Harry Hund moved that the *Courier* be edited for the year 1939-1940 within the budget of \$350. Motion seconded and carried.

Mrs. A. E. Henderson moved that the letter concerning the Morning Milk contest be tabled until the September Board meeting, and that Mrs. Lawrence M. Knox be thanked for her interest in the project. Motion seconded and carried.

#### *Amendment:*

Mrs. Frank Baxter then moved that the resolution presented by the Woman's Auxiliary of Sacramento, providing that widows of members in good standing in the State Medical Association be permitted to affiliate with any county auxiliary where they reside in California, be referred to the Revisions Committee. Motion seconded and carried.

The Secretary read a resignation from Mrs. F. G. Lindemulder, First District Councilor, because of her election as Councilor-at-Large. Mrs. Hund moved to accept the resignation. Motion seconded and carried. Mrs. W. W. Roblee, Mrs. Harry Huffman, and Mrs. Erwin Miller were presented as possible candidates for First District Councilor. Mrs. Lindemulder moved that this office be left up to the President to fill. Motion seconded and carried.

The President asked that all business which is carried on at Board meetings be confidential. She announced that a Board meeting will be held in the Woman's Athletic Club, San Francisco, September 15, 1939.

There being no further business, the meeting adjourned.

Respectfully submitted,

MRS. G. WENDELL OLSON, *Recording Secretary*.

### Component County Auxiliaries

#### *Orange County*

The members of the Woman's Auxiliary to the Orange County Medical Society entertained their husbands at a Swedish Smorgasbord on June 29, 1939, in the new garden house of Dr. and Mrs. G. Wendell Olson, 219 Buena Vista Drive, Fullerton. Swedish colors, blue and yellow, were used in the flower arrangements and the tables were spread with Swedish peasant cloths. During the dinner hour Miss Ethel Campbell played her accordion, which was greatly enjoyed by the fifty-nine members and guests present.

This event closes the activities of this Auxiliary until next October.

MRS. G. WENDELL OLSON, *Publicity Chairman*.

*Advocate Strict Isolation of All Pneumonia Patients.*—Isolation of all cases of pneumococcic pneumonia is advocated by Julien E. Benjamin, M. D., James M. Ruegger, M. D., and Fanny A. Senior, Cincinnati, in their article, "Cross Infection in Pneumococcic Pneumonia," in *The Journal of the American Medical Association*.

Although the disease has long been classed as contagious, the authors say, it rarely is reportable. The general failure to segregate or isolate patients with pneumonia implies that its contagiousness has been underestimated.

"It is essential that each patient be segregated in a cubicle and not treated in the open ward," the authors maintain. "Physicians and nurses should be required to observe the same precautions in caring for such patients as are usual in contagious disease wards.

"The wearing of gowns and masks and the washing of hands after each examination or treatment should be strictly enforced. Visitors should likewise be protected. Since these regulations have been adopted at the Cincinnati General Hospital, we have been convinced of their merits."

In support of their statements, the authors cite several instances of cross infection.

"During the peak of the economic depression," they state, "there existed in Cincinnati two bureaus for the care of homeless men, one for the local inhabitants and a federal one for transients. The inmates slept in large dormitories. Overcrowding was one of several unfavorable factors. Epidemics of Type I pneumonia were encountered in each dormitory.

"The outbreak occurred in the two buildings, at some distance from each other, suddenly and at about the same time, and it stopped equally suddenly. Two deaths occurred in each group.

"The following November there was another outbreak at the Federal Bureau. There were in residence at the time several hundred men. Within one month nine patients with pneumonia were admitted to the hospital.

"The actual number of men who had infections of the respiratory tract is not known, but that many had colds is definitely established. Colds may be a factor which determines the transfer and establishment of Type I and Type II pneumococci from the infected to the uninfected person.

"There is abundant evidence that hospital contacts are frequently infected from pneumonia sufferers. It has been shown that about 2 per cent of the hospital contacts contracted the same pneumococcic disease. This of itself would justify segregation of infected persons. Fifteen patients, treated in the medical wards of the Cincinnati General Hospital in two years, definitely contracted the disease from other patients in the same ward who had the same types of pneumonia.

"The following winter, after rigid precautions had been enforced, only two patients had pneumonia which could be attributed to cross infection."

A case of a doctor who contracted pneumonia from a patient is cited and also two cases of infection contracted by laboratory workers.

"About 20 per cent of the immediate family contacts with a pneumonia patient treated at home harbor the same strain of pneumococci in the nasopharynx," the three doctors state. "The disease actually develops in a certain number of these carriers."

They conclude that "each patient with pneumonia should be regarded as a focus for the spread of the infection. The care of each patient should include those measures which have been found serviceable in the treatment of other communicable diseases."

*Relief of Pain of Childbirth.*—Hope of still better methods for the relief of pain of childbirth is found in the enthusiasm and great interest of the medical profession in this problem, *The Journal of the American Medical Association* for June 24 declares in an editorial.

"Ideal methods for relief of pain of childbirth have been the goal of obstetricians since ancient times," the editorial says. "Inscriptions and drawings left by early Egyptians indicate that they tried unsuccessfully. Less than a century has elapsed since Sir James Y. Simpson of Edinburgh first used an anesthetic, a few drops of chloroform, for this purpose."

After discussing the various methods of producing obstetric amnesia (temporary loss of memory) and analgesia (absence of sensibility to pain) and certain objections that have been offered to their use, the editorial says:

"The ideal drug or combination of drugs has not yet been discovered. Perhaps in the hands of masters all of the methods mentioned are essentially safe for both mother and baby. The skilled obstetrician, at least, has the opportunity to choose the particular technique best suited to each case. The enthusiasm and great interest in this problem offer hope of still better methods."



## MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

## NEWS

### Coming Meetings

*American Medical Association*, New York, June 10-14, 1940. Olin West, M. D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

*California Medical Association*, Hotel Del Coronado, Coronado, May 6-9, 1940. George H. Kress, M. D., Secretary, 450 Sutter Street, San Francisco.

*Nevada Medical Association*, Reno, September 22 and 23, 1939. Horace J. Brown, M. D., Secretary, P. O. Box 689, Reno, Nevada.

### Medical Broadcasts\*

#### *Los Angeles County Medical Association*

The radio broadcast program for the Los Angeles County Medical Association for the month of August is as follows:

Thursday, August 3—KECA, 9:45 a. m., The Road of Health.

Saturday, August 5—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, August 10—KECA, 9:45 a. m., The Road of Health.

Saturday, August 12—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, August 17—KECA, 9:45 a. m., The Road of Health.

Saturday, August 19—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, August 24—KECA, 9:45 a. m., The Road of Health.

Saturday, August 26—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, August 31—KECA, 9:45 a. m., The Road of Health.

### Treadway to Survey Care of Mental Patients in State.

Announcement that Dr. Walter Lewis Treadway, assistant surgeon-general of the United States Public Health Service, has arrived to spend a year at the University of California Medical School for the purpose of making an exhaustive survey of the care of mental patients both at the medical school and throughout the State, was recently made by President Robert Gordon Sproul.

The survey is part of an examination of all of the country's major public health facilities and activities that the Public Health Service is making in the interests of greater integration and effectiveness. As the chief psychiatrist in the service and one of the most outstanding authorities on mental disorders and treatment in the country, Doctor Treadway has been given the task of directing the psychiatric phases of the general examination.

At the medical school Doctor Treadway is expected to make a special study of the advances that have been made in mental case care and treatments in the school's psychiatric division in the past few years.

Doctor Treadway is a graduate of the Barnes Medical College, where he received his M.D. in 1907. Before entering government service he was assistant physician in the Jacksonville State Hospital, Illinois, and clinical psychiatrist in the Illinois Psychiatric Institute.

\* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

### Pacific Coast Society of Obstetrics and Gynecology.—

The dates for the next meeting of the Pacific Coast Society of Obstetrics and Gynecology have been changed from October 4-7, 1939, to November 8-11, 1939, the meeting to be held in Portland, Oregon. For information, write to T. Floyd Bell, M.D., Secretary-Treasurer, Oakland, Calif.

**Special Meeting July 13.**—A special meeting of the San Francisco Chapter of the Public Health League of California was held on Thursday, July 13, 1939, at the Veneto Restaurant, corner of Mason and Bay streets, San Francisco. Executive Secretary Ben Read gave a report of the recent legislative activities at Sacramento.

Charles A. Noble, Jr., M.D., secretary, reported an excellent attendance.

### Gonadotropic Hormone Produces Giant Rat Litters.

The gonadotropic hormone taken from pregnant mares and injected into immature rats brings these animals to sexual maturity within three days and causes them to produce living litters far larger than those of untreated rats.

This has been shown in experiments conducted on the Davis campus of the University of California by Dr. Harold H. Cole, associate professor of animal husbandry.

One rat in Doctor Cole's collection produced twenty-three living young, while another had thirty-three implanted fetuses. Both these rats had been injected with the hormone. The average litter among the injected rats was seventeen. The average litter for the untreated rats was only eleven, while the largest living litter produced by these rats was nineteen.

Both the purified extracts of the hormone and the pregnant mare serum which contains the hormone have been used. Studies of the effect of this hormone on rats are expected to lead to new discoveries concerning animal reproduction and possibly open a new method of treating animals whose fecundity is low.

**American Congress of Physical Therapy.**—The eighteenth annual scientific and clinical session of the American Congress of Physical Therapy will be held September 5, 6, 7, and 8, 1939, at the Hotel Pennsylvania, New York City. Preceding these sessions the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians—August 30 and 31, September 1 and 2.

Physicians are urged to plan their vacation for these periods and bring their families to New York for the World's Fair. Ample time has been provided for, during the convention, to visit the Fair and to enjoy the various activities of America's metropolis.

The instruction seminar should prove of unusual interest to physicians and technicians. The clinics, which comprise half of the schedule, make this course outstanding for its practical value. As in the past, outstanding clinicians and teachers will participate. Registration is limited to one hundred and is by application only. For information concerning the seminar and preliminary program of the convention proper, address American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

### Child Nutrition Seen as Nation's Great Investment.—

All work and no play may make Jack a dull boy, but even a program which includes large doses of both will not produce a well-educated child unless he is well and wisely fed, declares Dr. Richard Arthur Bolt, director of the Cleveland, Ohio, Child Health Association, who is in Los Angeles as a visiting member of the University of California Summer Session faculty.

"A hungry and sick child cannot be educated properly," Doctor Bolt points out. "Our schools have found it necessary to finance extra feeding, an extremely important measure at present and one which should be continued. Any investment put into feeding our school children will pay ample dividends in the next few years. Good nutrition is the basis of all health measures in the growing child. Food of the right quality is relatively cheap now, and a balanced diet comparatively easy to assemble."

The well-fed child's daily diet should include at least one quart of good milk, a fresh greens and vegetable salad, tomatoes, whole grain cereal, butter and eggs, declares Doctor Bolt.

### U. C. Medical School Gives Wide Service.—

The Medical School of the University of California stands on the San Francisco campus of the University on Parnassus Avenue, stretching from First to Fourth Avenue. It is the major activity of the University Medical Center, where the Schools of Medicine, Dentistry, Pharmacy and Nursing carry on their activities in close proximity with the University Hospital, supplying 83,000 patient-day services, and the out-patient department, to which 185,000 visits are made each year by 35,000 individual patients, and the Hooper Foundation for Medical Research.

The purposes of the Medical School are to train effective physicians, fully competent to serve the sick and injured and also as a hospital to give aid to invalids and injured who are unable to pay physicians.

There is also the duty to develop new knowledge and to evaluate old knowledge about health and disease and to make this knowledge available through instruction, to medical students, undergraduate and postgraduate, and by publication to the scientific world and when possible, to the lay public.

#### Referred Service

As a state university medical school California also provides a referred service open to all physicians in the State. To this service the doctors send 3,104 persons every year for consultation. These are patients with obscure or complicated diseases, whom their physicians refer for aid to the various specialists of the University's medical and dental faculty. Such referred patients must be certified by their physicians as unable to pay for private professional aid.

The University Hospital of 330 beds was built in 1917 from funds donated by generous friends of the University. The out-patient building was built in 1933 and is one of the most modern institutions of its kind. It houses various out-patient clinics devoted to medicine and surgery and to their specialties, also the operative and the administrative units of the Schools of Dentistry and of Nursing as well as the Crummer Library of Medical History and a department of physiotherapy with a pool for the treatment of crippled children.

The University Hospital is too small to supply all the needs for student training but the staffs of the medical schools are commandeered to give the medical and surgical services needed by patients of the great San Francisco Hospital. Here, through the coöperation of Director of Health Dr. J. C. Geiger, medical students of the university may follow ministrations and teaching of their professors. . . — *San Francisco News*, June 17.

**Pacific Association of Railway Surgeons.—**The Thirty-seventh Annual Convention will be held in San Francisco on September 29 and 30, with headquarters at the Clift Hotel. As usual, the scientific sessions will be held on Friday and Saturday mornings. The customary luncheons and banquet will greet you. For program and information, write to W. T. Cummins, M.D., Secretary, in care of Southern Pacific Hospital, San Francisco.

### Teaching Hospital Safe Place for Maternity Cases.—

An intensive study of births over an eleven-year period "very forcefully shows that a well staffed and managed teaching hospital, using conservative methods of treatment and checking results from time to time by efficiency studies, is an extremely safe place in which to have a baby." This is stated in a paper issuing from the division of obstetrics and gynecology of the University of California Hospital.

The report is a review of 10,708 obstetrical cases in the hospital, and shows maternal mortality rates which are much lower than the ten-year period preceding that covered in the study. The chief feature noted in the study is that a remarkably low mortality attended the method of Cesarean section developed in the hospital and the very free use of blood transfusions now used as preventive measures and not as a last resort, as in former years. For these reasons methods of delivery can be used in cases where unusual difficulty is being experienced. In former years other methods would have been attempted; procedures used only as a last resort and which were attended with high mortality to the child in a desperate attempt to save the mother's life.

The low maternal mortality rate has been obtained with an operative rate for delivery which is extremely low, it is pointed out. Cesarean section is never resorted to unless it is clearly indicated by every known related factor.

The report shows but twenty-one deaths in the 10,708 deliveries, or an average of only two a year. In this regard it is stated that many of the most serious cases are sent to the teaching hospital.

### Vital Elements Shown at Work in Human Body.—

The manner in which the flow of the vital elements through the human body has been lighted up through the production of radioactive isotopes of those elements, to reveal or to check hidden disease, was detailed at the twenty-third annual meeting of the Pacific Division, American Association for the Advancement of Science by Dr. John H. Lawrence of the University of California Medical School, and the University's radiation laboratory.

Demonstrations of the manner in which the radioactive substances are deposited in both normal and diseased organs were made by Doctor Lawrence. Using actual samples of the phosphorous isotope, he showed how it could pass through human tissue and be checked for the whole term of its radioactivity by means of the Geiger counter, which is activated into granting or popping sounds by the emanations from the substance, and which can also count or measure these emanations.

Through the use of slides, Doctor Lawrence demonstrated the highly selective concentration of iodine in the thyroid gland, and how the total excretion of iodine in a five-day period is definitely increased in patients suffering with myxedema, a deficiency of the thyroid secretion. Another demonstration was made of the manner in which the radioactive iodine in the gland was traced for a number of days through the placing of the counter directly on the neck of the patient.

One demonstration of the manner in which radioactive substances are deposited in cancerous growths was made by Doctor Lawrence. Two mouse tumors, a lymphoma and a lymphosarcoma, which are practically indistinguishable,



both consisting of round cells and little stroma or framework, were treated. It was noted, however, that their phospho lipid turnover, after absorption of radioactive phosphorous, was quite different, the rate being much greater in the case of the lymphosarcoma.

**Annual Conference of the National Society for the Prevention of Blindness, October 26-28, 1939.**—With the hope that the headquarters of the National Society for the Prevention of Blindness will be the mecca for the prevention of blindness to workers in the United States during this time, the society is planning to hold its annual conference October 26, 27, and 28, so that those from distant points who may be planning to enjoy the World's Fair may perhaps make their plans so that they may at the same time participate in the program of the society.

Headquarters for the annual conference will be the Astor Hotel in New York City. The society will be glad to make reservations in advance at this or other adjacent hotels for anybody planning to participate.

It is hoped that the conference will bring together from many states physicians, teachers, nurses, social workers and those active in the various fields of sight conservation. Arrangements will be made for extending the facilities of the society's offices at Rockefeller Center, 50 West Fiftieth Street, to all visitors.

**Press Clippings.**—Some news items from the daily press on matters related to medical practice follow:

#### Doctors Win Anti-Trust Case

##### *Sherman Act Doesn't Apply, Court Holds*

Government's Suit Against American Medical Association Is Thrown Out in District of Columbia

Washington, July 26 (AP).—Justice James M. Proctor of the District of Columbia Federal Court today dismissed the Government anti-trust proceedings against the American Medical Association.

He held that the practice of medicine is a profession and that the Sherman Anti-Trust Act applies only to business and trades.

The Department of Justice had obtained indictments against the American Medical Association, three other medical organizations and twenty-one prominent physicians on the grounds that they had conspired to restrain trade by fighting a group system of medical care at flat monthly charges.

Today's action sustained the American Medical Association's demurrer to the indictment. Unless Justice Proctor's ruling is reversed by a higher court, it will have the effect of closing the case.

#### Discrimination Charged

The Government acted when the Group Health Association, Inc., protested that the District of Columbia Medical Society was discriminating against it. The group was formed here to provide low-cost medical care, especially for the lower income groups. It found that certain hospitals and doctors refused to accept patients referred to them by the group's own doctors.

The Government investigated circumstances of this alleged discrimination for eight weeks and then presented the case to the Grand Jury here. The indictments followed.

In arguing against the demurrer which the Medical Association promptly filed, the Government asserted that Anglo-American law reaching back to the fifteenth century had regulated medicine by the same laws as those applying to any trade. Trade, the Department of Justice attorneys declared, includes every occupation in which money is habitually received, under contract, in return for some value given.

The American Medical Association counsel contended that this definition of trade was too broad and if applied would encompass all business and professions to the point of "destroying all human activity." Such a broadening of power, the American Medical Association contended, was contrary to common law and the American Constitution.

The group argued that medicine was a profession, not a trade, and therefore does not come under the scope of the Sherman Trade Restraint Act. That was the contention that Justice Proctor upheld.

#### Department Will Appeal

The other organizations named in the indictment were the District of Columbia Medical Society, the Harris County (Houston, Tex.) Medical Society and the Washington Academy of Surgery.

Wendell Berge, first assistant to Anti-Trust Chief Thurman Arnold, said he assumed the decision would be appealed.

"An appeal seems to me to be a foregone conclusion," he said. "I can't imagine our resting on a lower court's decision in a case of this importance."—*San Francisco News*, July 26.

\* \* \*

#### Medics Triumph in United States Battle on "Trust"

Washington, July 26 (AP).—The American Medical Association won a sweeping victory over the Government today when a federal district court held that the Sherman Anti-Trust Act could not apply to the practice of medicine.

Justice James M. Proctor, ruling out an indictment in which the Justice Department charged the American Medical Association and fellow defendants restrained the "trade" of Group Health Association, Inc., a coöperative health association in the District of Columbia, said.

"Is medical practice a trade within the meaning of section three of the Sherman Act? In my opinion, it is not."

Justice Department officials, while not commenting, indicated an appeal would be asked.

Justice Proctor remarked at one point that the indictment as drawn "smacks" of a "highly colored, argumentative discourse," and at another point he said it was "afflicted with vague and uncertain statements."

In some instances, he added, material facts were entirely lacking.

The indictment had declared that the defendants "combined and conspired" to restrain trade by seeking to prevent group health from arranging for medical care and hospitalization; by restraining the organization from "obtaining by coöperative efforts" adequate medical care for its members; by "restraining the doctors serving on the medical staff of Group Health Association, Inc., in the pursuit of their callings"; by restraining other doctors from serving it, and by "restraining the Washington hospitals in the business of operating such hospitals."

The grand jury had charged that the organizations and physicians agreed to forbid group health doctors to practice in Washington hospitals; had denied consultations to group health physicians.—*San Francisco Call-Bulletin*, July 26.

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#### Doctors Win in Anti-Trust Suit Over Group Medicine Indictment Against Association Killed

U. S. to Appeal Decision of Washington, D. C., Court

By The Associated Press

Washington, July 26.—The Department of Justice suffered a major defeat today when a Federal district judge tossed out of court an indictment charging the American Medical Association, three other medical organizations and twenty-one prominent physicians with violating the anti-trust laws.

Justice James M. Proctor ruled that medicine is not a trade, but a learned profession, and therefore that the defendants could not be guilty of restraint of trade in their alleged activities against Group Health Association, Inc., a coöperative set-up to afford medical care on a prepaid basis to federal employees in the District of Columbia.

The judge also caustically criticized the indictment, using such words as "bad," "improper," "highly colored," "vague" and "uncertain."

#### Early Appeal

The Justice Department announced in a formal statement tonight that "every effort" would be made to get a Supreme Court decision on the district court's action "at the earliest possible moment."

In a formal statement, the Department said it was making its announcement "not for the purpose of criticizing the opinion, but for the reason that it is important to inform physicians generally that until the Supreme Court has acted the Government's prosecution policy toward boycotts in the medical profession is unchanged."

"None of the reasoning of the opinion persuades the Department that doctors are free to engage in practices which would be illegal if they belonged to some other calling," the statement said.

#### Prosecution Looms

"In addition, any further restraints of the character included in the indictment will also be subject to prosecution.

"It is important the physicians not be misled on this point for the reason that the district court opinion is not a binding authority on other judges."

The indictment, returned by a Federal Grand Jury last December, charged that the American Medical Association, the Medical Society of the District of Columbia, the Washington Academy of Surgery, the Harris County (Texas) Medical Society and the twenty-one physicians had "combined and conspired together for the purpose of restraining trade."

The specific charges were that they had interfered with the plans of Group Health Association by refusing consultation service to the group's physicians, by refusing them permission to practice in Washington hospitals, and by threatening to expel them from membership in the medical societies.

#### Leading Defendants

Among the defendants named in the indictment were Dr. Olin West, secretary and general manager of the American Medical Association; Dr. Morris Fishbein, its editor; Dr. William C. Woodward, Dr. William D. Cutter and Dr. Roscoe G. Leland, heads of three of its bureaus. The other doctors all were members of the District of Columbia Medical Society.

In rejecting the Government's argument that medical practice is trade within the meaning of the statute, Justice Proctor said:

"The thesis of Government counsel that 'trade' embraces all who habitually supply money's worth for money payment and their contention that the statute should be so broadly construed represents an extreme position which does violence to the common understanding of 'trade,' rejects authoritative decisions of our courts and ignores cardinal rules of statutory construction."

A recent decision of the Supreme Court redefined the word "trade" as used in the Sherman Act and exempted the learned professions, Justice Proctor said, "and admittedly the practice of medicine is one."

At Chicago today officials of the American Medical Association declared the organization had never opposed any well considered, expanded program of medical service "when the need can be established."

#### Nation-wide Topic

The local legal struggle has been the focal point of a nation-wide discussion over medical aid plans. These have been set up in every state and in about one-third of the counties, and in every instance the American Medical Association has insisted, through its member societies, that any organization attempting to provide medical care be under the direct control of medical men. Objections to Group Health were raised on the ground that it was a co-operative group of laymen which hired its own physicians and dominated them.

The association also argued that the same safeguard be provided in such a national health program as that proposed in the Wagner Health Bill now before Congress.

"The physician must be master in the house of medicine," has been the slogan of the association.—San Francisco Examiner, July 27.

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#### Washington Merry-Go-Round\*

##### *Social Medicine to Be McNutt's Main Job*

Washington, July 19.—There was a reason why Paul McNutt took his oath in the office of Dr. Thomas Parran, head of the Public Health Service, and also will have his headquarters there.

That is the tip-off to his real job as chief of the new Federal Security Agency.

The platinum blonde Indianan will give little time to the Social Security Board, CCC, National Youth Administration, Public Health Service or the Office of Education. Each is well manned and operates under specific statutory powers. There is room for a certain amount of correlation of their activities, but that will be a secondary concern of McNutt.

His interest will be centered on the New Deal's social medicine program.

Senator Bob Wagner, father of the Social Security Act, introduced a bill at the opening of this session for an \$800,000,000 public health plan, ranging from free medical service for the needy to the construction of hospitals and establishment of government disability insurance. The Senate Labor Committee has held a number of hearings on the measure and plans to make a report before adjournment. But beyond that there is no chance of any action this year.

That is exactly where McNutt enters the picture.

He will drive to prepare the ground for the enactment of legislation next year.

What form this legislation will take is something McNutt will work out with medical leaders and experts. The Wagner bill will be the starting point. It is the result of a year's study by a special committee appointed by the President and

\* By Drew Pearson and Robert S. Allen.

headed by Miss Josephine Roche, former Assistant Secretary of the Treasury.

#### Two Reasons

There are two reasons behind this undercover strategy:

First is the 1940 presidential campaign. The Administration wants a broad-gauged public health program to its credit on the law books as 1940 approaches. In the spring of 1936, it enacted the Social Security Act and made big capital of it among voters.

Second reason is that the New Dealers have learned that Dr. Glenn Frank, chairman of the Republican Program Committee, is secretly formulating a public health plan for use as a G. O. P. ballot lure.

Exact nature and extent of Frank's Republican program is not known, but inside information in the hands of the White House group indicates that he aims to have the G. O. P. offer the plan as a concrete illustration of the constructive things it will accomplish if elected, as compared with Democratic lack of accomplishment.

Administration master minds are out to beat the Republicans to the punch and it will be McNutt's goal to steal their thunder by putting over a Democratic health program.

Note—Among the telegrams received by McNutt congratulating him on his FSA appointment was one from Dr. Morris Fishbein, editor of the official magazine of the American Medical Association and a violent foe of social medicine. . . .—San Francisco Chronicle, July 20.

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#### Dentists Told Liberty Periled\*

*Free Initiative Menaced by Government, Says Publisher Gannett*

Milwaukee, July 18 (AP).—Frank E. Gannett, Rochester, N. Y., publisher, called upon the American Dental Association today to "repeal assault upon liberty of enterprise, individual initiative and personal dignity—upon qualities which are the foundation of all that we call the American way."

Asserting that "progress comes not from centralization and political control but from opportunity for free initiative," Gannett told the Association's eighty-first annual convention:

"Today freedom of the professions is under jeopardy in America. The medical profession was the first to be placed under check. American medicine has been fighting for its life."

#### Sees Threat to Bar

Gannett declared the assault upon the professions had been extended to law, since "last week Solicitor-General Jackson announced to the lawyers that if they did not organize the Government would step in and take care of the constantly increasing proportion unable to secure legal services."

#### Suggests Program

Gannett advocated a return to "sound economic principles" and a recovery program including: a national policy "worthy of confidence," restoration of farm income, a "sound" monetary system, restoration of "incentive," friendly capital-labor relations, lower governmental expenses, useful public works "free of politics," and a long-term neutrality policy.—Los Angeles Times, July 19.

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#### Medical Care Need Shown in Report

A survey of medical needs, requested by members of the State Legislature, has revealed that 41.68 per cent of American families are too poor to meet the full cost of medical care, it was stated today by the "Bureau of Public Administration of the University of California." †

A total of 40,000,000 persons in the United States were subsisting on an emergency standard of living in 1938.—San Francisco Examiner, July 24.

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#### Los Angeles Healthiest City

*Doctor Parrish's Annual Report Reveals New Decline in Death Rate*

El Pueblo de Nuestra Señora la Reina de Los Angeles de Porciuncula (Los Angeles to you) is the most healthful large city in America.

That was the enthusiastic statement, backed by facts and figures, of Dr. George Parrish, city health officer, yesterday as he completed compilation of his departmental report for the fiscal year ending June 30.

During the last year this city's death rate—already the best among large American cities—dropped from 10.65 per

\* In this issue, see also on page 74, editorial comment, "The Professions: Are All to Bow to Governmental Paternalism?"

† NOTE.—It is unfortunate that such erroneous figures should go out for publication, over the name of a department of the State University of California.



1,000 persons to a new low of 9.16 per 1,000, Doctor Parrish's records showed.

The infant death rate (children under 1 year) dropped from 48 per 1,000 to a new low of 37.42.

Moving from the human to the economic side of the ledger, the health officer reported that Los Angeles had no epidemics last year, that its dairies under supervision of the health agency have received commendation from the highest health authorities in the nation.—*Los Angeles Times*, July 20.

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#### The Doctors' Problem

The plan to set up a State-supervised medical service at a cost of \$60,000,000 per year, to be supported by taxes on employers and employees, has been beaten. The Assembly rejected the measure, 48-20.

The bill, which was endorsed by the administration, would have provided medical and hospital service on a basis similar to the unemployment reserves plan. In favor of the proposal was the fact that it would have provided this service on a systematic basis for low-income groups. Against it was the fact that still another tax would have been laid upon business and the people and that almost inevitably the control of the service would have been shifted to a bureaucratic political machine, with consequent sure deterioration in the quality of the service rendered.

The history of this type of public medical service, in countries where it has been tried, is that the care received by the people is inferior to that received in this country, and the strides toward the control of disease are slower than here.

However, the fact that this far-reaching proposal received even twenty votes in the California Assembly, together with the Wagner bill in Congress which would subsidize a huge expansion of government medicine throughout the country, should serve as handwriting on the wall for the physicians of the State and Nation.

The medical men of the United States can hold up their heads with any in the world for the gains they have made in the unending conflict with disease. Smallpox, diphtheria, tuberculosis, scarlet fever, pneumonia—none of these is the scourge it was ten years ago and even the dread cancer is certain ultimately to be conquered.

However, the physicians themselves have long admitted that there is a genuine need for better medical service for the great middle class group. The poor are taken care of in county hospitals. The rich can pay for service. But the middle class often finds sickness a financial burden that is very heavy to bear.

Part of the fault lies with the people themselves. They budget for their autos, refrigerators and amusements but do not set aside any amount for medical and hospital care. It should be made simple and easy for the ordinary family to budget a moderate amount each month to take care of illness when it comes.

Perhaps the California Physicians' Service, which will soon go into operation, will provide the systematic, low-cost service needed. At any rate, the doctors, seeing the public demand for such service, should take the lead in providing it, as they seem to be prepared to do, rather than allow legislators to put over a politics-controlled system.—*Lodi Times*, June 23.

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#### State Health Insurance Losses; Doctors to Offer Their Plan

Defeat of the bill to establish compulsory health insurance in California by a two-to-one vote in the Assembly was not altogether unexpected. There were two main reasons why the bill should have been defeated—one, that the State Medical Association is working on a plan which promises to be far superior to a State controlled and operated plan, and, two, the inequitable financial provisions of the State plan.

The doctors of the State asked that the bill be defeated, and that they be allowed to work out their own solution to the problem of proper medical care for the lower income groups. It now remains for the doctors to put their plan in operation and have it working by the time the next Legislature meets. If it is operating successfully by then there will be no need of State action.

The danger the doctors themselves face is that some members of the medical profession will take the defeat of the State proposal as an indication there is no special hurry to get their plan in operation, or that the trend to socialized medicine has ended. In either event, the next Legislature will not listen to the doctors but pass legislation which might not be popular with either the doctors or the income group which needs but cannot afford medical aid.

The plan advanced by the Medical Association is a volunteer proposal, which is always better than a compulsory service. To make it work coöperation from both doctors and patients is needed. This guarantees better service from the doctor and greater trust on the part of those needing attention.—*Santa Barbara News-Press*, June 17.

#### Newspapers Praised for Fight on Disease

##### *Social Hygiene Director Tells of Coöperation*

American newspapers, through frank treatment of the problem of social diseases, have taken front rank in the battle against one of the Nation's greatest menaces to health.

Such was the statement yesterday of Dr. Walter Clarke, executive director of the American Social Hygiene Association of New York, as he spoke before members of the Western Branch, American Public Health Association, at the opening session of their six-day conference in Oakland.

#### Truth Disclosed

"Newspapers have coöperated with the American Social Hygiene Association in telling the public the simple, hopeful truth about venereal diseases," Doctor Clarke said.

"Yet some states and many cities, towns and rural areas do not even have a program for combating these diseases nor do they have facilities for diagnosis, treatment or control," he said.

"Our most immediate task is to aid in setting up such programs and adequate facilities. It is true that public opinion has been awakened, yet millions of people do not know how to avoid or prevent infection, do not know what to do if infected, or how to protect their families from danger.

"We must continue and enlarge our program of public information until it reaches all strata of society in every community, large or small," Doctor Clarke declared.

#### Two Hundred Registered

Over two hundred delegates had registered for the convention yesterday, and several hundred more are expected today. A joint meeting with the health education group of the Sixth Pacific Science Congress is planned for 3 p. m. today in the Hotel Oakland. Dr. Ira V. Hiseock of the Yale University School of Medicine will preside.—*San Francisco Examiner*, July 24.

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#### Scientists' Congress

##### *Dozen Nations Scheduled for Representation*

A "peace conference," organized in the name of science but of far more importance to the welfare of man than any meeting of world diplomats, will open in Berkeley today.

It is the Sixth Pacific Science Congress, bringing together the great scientific minds of a dozen nations bordering on the Pacific Ocean or with interests in the Pacific basin.

Around the conference tables they will meet in harmony to discuss problems of the world of science, and from the friendly exchange of ideas may well develop trends of scientific thought of incalculable value to the comfort and well-being of future generations. . . .

#### Group Meetings

At group meetings today, the scientists will get down to business after a morning devoted to registration. The problems of epidemics, with special emphasis on enteric infections, dysenteries, cholera and typhoid fever, will be discussed at a meeting of the epidemiology subsection of the health and public nutrition group at a meeting in the Life Sciences Building on the Berkeley campus at 1:30 o'clock.

Dr. John F. Kessel of the University of Southern California, Los Angeles, will preside, and among the speakers will be James J. Sapero of the United States Navy Medical Corps, Panama; Charles A. Kofoid of the University of California and the State Board of Health; John F. Kessel of the University of Southern California School of Medicine, Los Angeles; Amador Neghme, Director of the Department of Parasitology, Chile; H. J. Sears of the University of Oregon; Albert V. Hardy of Columbia University; E. Hor-maeche, N. Surraco, and P. L. Aleppo of Uruguay; C. L. Pasricha of Calcutta, India, and H. Yu of Shanghai, China.

#### Health Discussion

At a joint meeting with the Western Branch of the American Public Health Association, to begin at 3 p. m. in the Oakland Hotel, delegates will discuss the problems of health education and health in public schools and institutions. . . . *San Francisco Examiner*, July 24.

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#### Health Insurance

The State Assembly, by a decisive two-to-one vote, defeated the bill to establish compulsory health insurance in California. The opposition to the measure was largely due to the inequitable financial provisions of the proposal and not against health insurance itself, whether voluntary or compulsory. It is generally recognized that there is a problem of proper medical care for lower income groups which must be faced, but the existing voluntary plans and those proposed and being worked out should be given opportunity for trial to the end that more practical information be made



available to all interested groups. This may finally result in an equitable solution.

The measure which was defeated proposed an additional tax upon employees, but two-thirds of the amount would be provided by the general public. The bill was in effect socialized medicine for the State of California. It was feared by the medical profession that the whole plan would bring about regimentation of doctors and patients and political interference in their relationship.

In the meantime the State Medical Association has adopted a plan of health insurance to meet the present situation. Alameda County, for instance, is successfully operating under such a plan. Out of all the agitation and discussion it is the general belief that the existing voluntary plans will be satisfactorily worked out.—*Long Beach Press-Telegram*, June 18.

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#### State Medical Men to Fight On for Health Insurance

Defeat of the State health insurance bill of the California medical men will not stop organization of the California Physicians' Service, according to Dr. Ray Lyman Wilbur, president of Stanford University and head of the service. This means, perhaps, that the set-up may be changed in some particulars to meet the legislative objections responsible for the loss of the measure and to make the proposal effective.

It is interesting to know that more than 400,000 applications for information on the service have been received at headquarters and that 4,962 of the State's 6,300 licensed physicians have been enrolled in the service, according to Doctor Wilbur. This indicates that the profession strongly fortifies a general health insurance plan and furnishes a substantial basis on which to erect a system that will meet public conditions.—*Hanford Journal*, June 16.

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#### But—Says Boake Carter New Dealers Now Seek to Socialize Law

Are the lawyers to be next on the list to feel the heavy hand of government competition?

Solicitor-General Bob Jackson claims that lawyers in general are charging too high fees for their services and that the Government may therefore be compelled to provide free legal service for people who cannot pay the fees of the private law firms.

"Low cost, high volume" legal service was his solution.

This piece of advice, coming from a lawyer representing a political organization whose high jinks have been so confusing as to provide more work for the legal fraternity than at any other time in the history of the American bar, borders on the comic.

A lawyer is justified in charging a fee which he believes commensurate with the worth of the services he renders, as is any artist, radio singer, movie actor, engineer, doctor, dentist or other professional man.

We have not yet reached the stage where we must submit to a system of socialized legal advice, as Mr. Jackson seems to envision as America's crying need, any more than we are prepared to accept socialized medicine. The relationship between client and lawyer is as intimate as the relationship between doctor and patient. And the very first person to turn thumbs down on the idea of government competition with the lawyers would be the average American citizen himself.

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To be sure, some of the lawyers charge fees which seem outlandish. But their "outlandishness" can be measured only by the worth of the service rendered by the lawyer in the estimation of the client. A man accused of murder may feel he paid a cheap price in \$25,000 if the lawyer to whom he paid it convinced the jury his client was innocent. There are lawyers who specialize in certain departments of law. Many of these establish a high standard of success before the bar. They are successful primarily because they are diligent and careful of detail. These characteristics are attainable only through long hours of hard work. For such "crimes" are they to be penalized?

Mr. Jackson was not known as anything extraspecial in the legal profession before he managed to climb aboard the New Deal bandwagon. By his avidity for politics and knowing whose political mug to kiss, rather than by his technological cunning as a lawyer, did Mr. Jackson rise to the position of Solicitor-General. Not in the widest stretch of imagination could Mr. Jackson hold a professional candle to the standards of sheer legal brilliance of the late Solicitor-General James M. Beck.

Where, then, does Mr. Jackson obtain the presumption blandly to inform some of the ablest legal brains of the Nation that they had better socialize their talents or else risk government competition in free advice? Simply that he is a politically appointed Solicitor-General gives him no excuse.

Furthermore, the boom in the law business during the last seven years is traceable to one source and one source alone—the New Deal, which Mr. Jackson represents. Most lawyers nowadays have to be mental trapeze artists to keep abreast of the twisted concoctions that have poured forth in a steady stream from the legal brains employed by the New Deal.

"The Government," says Mr. Jackson, "sees a large number of citizens who help pay taxes, deprived of legal service because they cannot pay the provisional scale of prices."

To begin with, a citizen cannot turn around nowadays, figuratively speaking, without being forced to go to a lawyer to find out whether he is or isn't unwittingly breaking some fool law, government ruling or regulation. In the second place, the lawyer whom he consults has a perpetual nightmare himself trying to keep up with the parade. The average citizen would not always be forced to run for legal advice these days, as indeed he must to keep out of a government jail, if the master minds in Washington quit thinking up new methods of regulating American economy from soup to nuts.

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"It has been for centuries thought the duty of government to take affirmative steps to see that its citizens received justice," Jackson observed.

The first step to carry out that thought in a "representative" form of government (Jackson forgot to include that word "representative") is for the Government to abstain from competing with the endeavors of its citizens!

Mr. Jackson had better go back to Jamestown, N. Y., and private law. He might get back to earth again—on the other side of the fence!—*San Francisco Examiner*, July 17.

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#### Nurses Cheered by New State Law Leaders Believe Licensing Act Will Raise Standards in Nursing Profession

If nurse hums a tune when she brings in your tray, or cuts a buck and wing in the hospital corridor, don't fret. This is her day to cheer. Her professional manner isn't suffering—her professional standing has been raised.

There's rejoicing today among registered nurses in the State of California, and particularly among the 10,494 members of the California Nurses Association. Assembly Bill 620, licensing all nurses practicing as professional graduate nurses in California, has been signed by Governor Olson.

The very pen with which the Governor affixed his signature yesterday to the measure for which the Association has worked long and hard was triumphantly brought to San Francisco today by Mrs. Gertrude R. Folendorf, State president. Miss Harriott L. P. Friend, director at headquarters; Mrs. Jessie Gardner, legislative chairman, and a delegation of all nurses who could get off duty, met Mrs. Folendorf at the Third and Townsend station at 9 a. m. today to escort her and the pen to headquarters. Governor Olson signed the bill after a public hearing during which representatives of the American Practical Trained Nurses Association protested that the measure would discriminate against the practical nurse.

"I do not believe this bill will affect practical nurses by eliminating them from employment," said the Governor. "If it develops that it does so affect them, I shall have it amended."

The California State Nurses Association itself had introduced an amendment, passed with the bill, stating that it was not the intent of the act to limit others from caring for the sick as long as they do not misrepresent their status or assume the duties which can safely be performed only by a trained and skilled graduate nurse.

The bill also sets up a board of nurse examiners, appointed by the Governor, controlling nursing schools of the State. The California State Nurses Association has long advocated the setting up of such a board, holding that applicants for nursing licenses should be examined by their own profession, as is the practice among members of other professions.

"We feel that this bill raises the standards of the nursing profession," said Mrs. Folendorf.

"It also protects the public. When anyone calls for a graduate nurse he knows he is getting one fully qualified in the care of the sick."

High praise was extended by Mrs. Folendorf and Miss Friend to the forty-five district divisions of the Association, which worked together for passage of the bill.

The bill was introduced into the Assembly by Melvin I. Cronin of San Francisco, passed the Assembly May 5, and the Senate June 6.

The Association has already set up a committee to study nursing conditions and set up a nursing service designed to meet the needs of the community. This committee work will be furthered at the 1939 convention of California profes-



sional nursing organizations, set for August 14 to 17 in San Francisco.—*San Francisco News*, July 18.

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#### "Doctors Should Report Drivers"

A change in State laws which would make it mandatory for physicians to report drivers whom they consider unsafe was urged by Dr. Walter Scott Franklin, vice-president of the California Safety Council, at a meeting of the group yesterday.

"As the law stands," he said, "a physician is not permitted to report such cases. We could achieve a great accident reduction if physicians were compelled to report flagrant cases."

The dangerously slow as well as the physically incompetent driver was also scored by Doctor Franklin, who pointed out that it is not necessarily the fast motorist who causes accidents. The latter, provided his speed is not caused by recklessness, alcoholism nor competitiveness, is usually a good driver, he said, whereas the slow driver often causes an accumulation of fifteen to twenty cars behind him, inducing recklessness in those who want to get ahead.

Within the near future, according to Doctor Franklin, autos will be equipped with special headlight glass to eliminate glare for about \$22 per automobile and drivers will be urged to wear glareless glasses. Night blindness, a contributing cause to many accidents, is caused by deficiency in vitamin "A" and may be rectified by a diet heavy in spinach, cheese, dried apricots and calves' liver, he said.—*San Francisco News*, June 30.

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#### Poliomyelitis Fund Sought

##### *General Hospital Reports Increase in Number of Cases*

Officials of General Hospital yesterday appealed to the Board of Supervisors for funds to combat poliomyelitis, which has been increasing in number of cases during the last few days.

##### *Thirty Being Treated*

Everett J. Gray, executive superintendent of the hospital, reported thirty cases are now under treatment. The victims are coming from all parts of the county. There does not seem to be any section where the disease is more prevalent.

Colonel Wayne R. Allen, County Manager, in forwarding Superintendent Gray's report to the supervisors, said:

"The hospital authorities have been informed that the present situation is to be considered as an emergency and that ample personnel and medical attention must be given regardless of budget limitations. Any additional expenses will be appropriated from the unappropriated reserve, which is the purpose of providing reserves in the county budget."

##### *Ward Segregated*

The hospital has set up a special segregated ward for treatment in preparation for any further outbreaks of the disease. This ward now has been opened and organized for the present emergency.

Ordinarily there are only two or three cases of the disease under treatment at General Hospital, sometimes none.—*Los Angeles Times*, July 13.

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#### Holiday Deaths Pass 300; None Due to Fireworks

(By the Associated Press)

Building to the climax of Independence Day, violent deaths for the first three days of the four-day "week-end" passed three hundred last night.

As in recent years, automobile fatalities accounted for more than half the total, with 165. Drownings ran a poor second with 84.

Fireworks, once notorious as dealers of sudden destruction, caused not a single reported fatality. The only fireworks accident of any proportions was recorded in Brooklyn, where five boys were injured by setting off a handful of giant cannon crackers inside a tin container. Two of them may die, doctors said.

Railroad accidents killed 16, shootings a dozen, airplane crashes 3, while miscellaneous forms of violence totaled 27.

The list by states, including all causes, was:

Alabama, 9; Arizona, 2; Arkansas, 3; California, 26; Colorado, 4; Connecticut, none; Florida, 7; Georgia, 10; Idaho, 1; Illinois, 11; Indiana, 13; Iowa, 5; Kansas, 5; Kentucky, 8; Louisiana, 5; Maine, 5; Missouri, 11; Massachusetts, 10; Michigan, 9; Minnesota, 8; Mississippi, 9; Montana, 4; Nebraska, 4; New Hampshire, 2; New Jersey, 10; New Mexico, 1; New York, 22; North Dakota, 3; Ohio, 22; Oklahoma, 5; Oregon, 3; Pennsylvania, 14; South Carolina, 5; South Dakota, 3; Tennessee, 4; Texas, 18; Utah, 1; Virginia, 9; West Virginia, 4; Washington, 6; Wisconsin, 2; and District of Columbia, 1.—*Los Angeles Examiner*, July 4.

## LETTERS

**Subject: Clinical Congress of the American College of Surgeons.**

*To the Editor:*—The twenty-ninth annual Clinical Congress will be held in Philadelphia, October 16 to 20. The surgeons of that great medical center will present a five-day clinical program that will provide a complete showing of their clinical activities in all departments of surgery.

At the presidential meeting and convocation Monday evening, Dr. Howard C. Naffziger of San Francisco will deliver the presidential address and the new officers will be inaugurated: Dr. George P. Muller, Philadelphia, president; Dr. Henry W. Cave, New York, and Dr. David E. Robertson, Toronto, vice-presidents. On this occasion fellowship will be conferred upon the 1939 class of initiates.

The preliminary clinical program appears in the June Bulletin of the College and the June issue of "Surgery, Gynecology and Obstetrics." It will be noted that the schedules are arranged by specialties, and so correlated that the visiting surgeon may devote his time continuously to those subjects in which he is most interested. . . .

Sincerely yours,

GEORGE CRILL,  
Chairman, Board of Regents.

**Subject: Ambulatory Tipster.**

A Santa Barbara colleague sends the following information:

"An Irishman, aged about 35, claiming to be a jockey and horse trainer, with wide knowledge of tracks and races as well as the names of doctors in many cities, is visiting doctors and stating he is contemplating a septum operation.

"Just as he leaves, he offers a hot tip on the day's races at Hollywood, with promise of big winnings. Oddly, his horses do win, but he never returns. Names—Hannigan, Hunt, and Hickgerald.

"I refused his offer, but two of my friends lost small sums, and also a tenfold winning on one of the tips."

**Subject: San Francisco Surgical Society.**

San Francisco, California,

July 1, 1939.

*To the Editor:*—I have been instructed to advise you of the formation of the San Francisco Surgical Society during the spring of this year.

The Society consists of twenty-four founder members. The officers are Thomas F. Mullen, president; George K. Rhodes, vice-president; John W. Cline, secretary-treasurer.

Regular scientific and clinical meetings will be held throughout the year.

Very truly yours,

JOHN W. CLINE, M. D.,  
Secretary-Treasurer.

**Subject: Clinics for Venereal Diseases.**

San Francisco, California,

July 1, 1939.

*To the Editor:*—The Health Department clinic at 680 Howard Street, San Francisco, operated by the Department of Public Health, San Francisco City and County, cooperating with the State Health Department and the United States Public Health Service, for the prevention, diagnosis and treatment of venereal diseases, is now engaged in its fourth month of service.

An effort is being made to direct patients found able to pay for care to private physicians. Plans are under way to establish a list of physicians willing to treat venereal disease

patients referred from the clinic. For this purpose a questionnaire has been prepared which will serve as a basis for establishing a list of physicians to whom patients will be referred. Patients who do not signify choice of physician known to them will be referred to physicians on the list in the order in which their names appear.

The Health Department clinic is maintaining a central register of patients who apply there for advice or care in venereal diseases and it would be desirable to continue the record of progress and treatment on these patients. For this reason reports from physicians on progress and treatment given patients referred from the clinic would be appreciated.

101 Grove Street.

Sincerely yours,

J. C. GEIGER, M. D.,  
Director, City and County of San Francisco  
Department of Public Health.

TO:

PURPOSE: To establish list of physicians in San Francisco who desire to accept patients with venereal diseases referred from Health Department Clinic located at 680 Howard Street.

INSTRUCTIONS: Please check in space provided all the statements which apply to you, thus signifying your wishes. Enclose this completed questionnaire in stamped addressed envelope provided.

1. I do not treat venereal disease patients in my practice. \_\_\_\_\_

2. I do not wish to treat venereal disease patients referred to me by the Health Department Clinic. \_\_\_\_\_

3. I am willing to treat only full-pay venereal disease patients. \_\_\_\_\_

4. I am willing to treat part-pay venereal disease patients. \_\_\_\_\_

5. I am willing to treat male gonorrhea. \_\_\_\_\_

6. I am willing to treat female gonorrhea. \_\_\_\_\_

7. I am willing to treat syphilis. \_\_\_\_\_

8. If there are special types of syphilis only which you wish to treat, as neurosyphilis, ocular syphilis, or restriction as to sex or age, please specify.

9. If you desire referred patients, indicate time during your office hours when patients should report to you.

10. Remarks \_\_\_\_\_

July 1, 1939.

Subject: California Medical Association Resolutions  
Concerning "Wagner Health Bill."

(COPY)

CONGRESS OF THE UNITED STATES  
HOUSE OF REPRESENTATIVES  
WASHINGTON, D. C.

LELAND M. FORD  
SIXTEENTH DISTRICT  
CALIFORNIA

Washington, D. C., July 8, 1939.

Dr. George H. Kress,  
Secretary, California Medical Association Council,  
San Francisco, California.

Dear George:

I received your letter of July 6, subject, "Resolution of California Medical Association concerning Wagner Health Bill, S. 1620," together with proposed amendments under H. R. 6635.

You may be sure that I will do everything possible to oppose this socialized idea of medicine. Not only am I going to oppose socialized medicine, but I am going to oppose every other socialized and communistic idea that they bring forth. I do not believe the Federal Government has any business in many of the things that they are now in unless you are going to have a socialistic or communistic republic. I am against these things.

We now have a half-socialized government and I am going to do everything I can to get it out and get back to an American form.

With best personal regards, I am

Sincerely yours,

(Signed) LELAND M. FORD.

P.S.: I am going to put your resolution in the Congressional Record.

Subject: Medical Libraries of State of California.

UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL

San Francisco, July 13, 1939.

To the Editor:—This is in response to your letter of July 10 regarding the State Medical Library situation.

1. The State Medical Library was discontinued on June 30, 1939. Both branches were closed as branches of the State Medical Library. However, all the work of the State Medical Library is being carried forward under the direction of the Regents and President Sproul by the University of California Medical Center Library, at San Francisco.

The subscription lists from the Los Angeles Branch are being transferred to the Medical Center Library, and the periodicals are being circulated from San Francisco to the State Medical Library subscribers all over the State. So far as I know there has been a minimum interruption in the service. There has been a slight delay in connection with some periodicals, but the service is being continued as efficiently as possible. . . .

The University of California Medical Center Library has had an additional appropriation from the Regents to take care of the subscription lists formerly carried by the State Medical Library. We cannot, however, make requisitions, since the University budget will not be signed until July 19.

2. The publications purchased under State Medical Library funds will remain on deposit in the University of California. At Los Angeles they will remain at the Medical Department in the custody of Dr. Bennett Allen. I think they will stay right in the place where they now are. We intend to maintain the files of these periodicals at Los Angeles from duplicates acquired in the Medical Center Library. This is readily possible and will require only binding at some future time. We will also be happy to supplement the Los Angeles collection with duplicate monographic material purchased for use under the circulating library system. The State Medical Library material purchased for the San Francisco Branch has always been on deposit in the Medical Center Library and will continue to remain there.

3. There is no provision, except through specific request, for the loan of periodical files to county medical society libraries. We do this continuously, but always have the material returned here. We have furnished duplicate files to San Jose, Los Angeles, and Alameda county medical societies. We shall continue to do this in the future if duplicate material becomes available and if requests are made for it. . . .

Best wishes as always, and many thanks.

Faithfully yours,

(Signed) CHAUNCEY D. LEAKE.



MEDICAL SCHOOL  
UNIVERSITY OF CALIFORNIA

San Francisco, July 19, 1939.

Dear Doctor Kress:

Thanks for your letter of July 17. As I told you before, we have already sent duplicate material from the Medical Center Library to various county societies. In addition to the ones you list, the Santa Clara County Medical Society at San Jose is attempting to build up a library. I don't think that we have ever sent material to Riverside as yet, but we will if we have any on hand that they desire.

Our prime obligation at present is to maintain the files at Los Angeles which were established by the Los Angeles Branch of the State Medical Library. We have already made arrangements to do this with Dean Allen. They will see to it that duplicate material from here is bound to keep the files intact.

I see no objection to printing my letter in CALIFORNIA AND WESTERN MEDICINE, if you think it covers the situation. I have prepared reports on several occasions for President Sproul, but nothing has been included which is not covered in my letter to you. I have also prepared a short statement for the Clip-Sheet, which will be released if it is satisfactory to the President's Office. It contains substantially the same information as given in my letter to you.

With cordial best wishes, as always,

Sincerely yours,

(Signed) CHAUNCEY D. LEAKE.

**Subject: A request for information.**

BOARD OF MEDICAL EXAMINERS  
STATE OF CALIFORNIA

San Francisco, July 21, 1939.

*To the Editor:*—Enclosed is a copy of a rather mysterious communication which we would appreciate your printing in CALIFORNIA AND WESTERN MEDICINE, omitting names and exact addresses.

Attention is called to the fourth and fifth paragraphs, also to the typewritten signature, "Pacific States Investigators," of which no record can be found by our Investigation Department.

The individual referred to in this letter was diagnosed as being two months pregnant, after which she assertedly solicited an abortion, which was refused. A few days later this letter was received.

We will appreciate hearing from any other doctors who have received similar letters, together with the circumstances in connection therewith.

Very truly yours,

(Signed) C. B. PINKHAM, M.D.,  
Secretary-Treasurer.

(The following letter was received in a plain envelope, postmarked San Francisco, June 5, 4:30 p. m., 1939.)

(COPY)

San Francisco, California,  
June 5, 1939.

Dr. ———  
——— Building  
(City), California

In re (Name)

Dear Doctor ———:

A few weeks ago your assistant had the following patient in your office. The nature of the case was maternity.

The call made was absolutely fictitious, and we are here-with explaining why the fee was not paid as Miss ——— promised.

Miss ——— is one of the operators of our organization, which we will not name, but which is one which investigates doctors and dentists in Oakland, Berkeley, and San Francisco. We work in close cooperation with the largest hospitals, and must work as we do to uncover disreputable doctors and dentists.

No certain doctor is set aside for investigation, but is given our so-called "test" as fast as we can do so. Our list is

then compiled and given to a hospitalization firm which is setting up a perfected system of group medicine, and which wishes to approach only the most reliable physicians and medical men.

We are very happy to inform you that you and Doctor ——— have been adjudged as worthy of consideration and you will hear further from the society shortly.

Thanking you for your cooperation, we remain,

Yours truly,

PACIFIC STATES INVESTIGATORS.

(Signed) (Name of Person).

**Subject: American Board of Obstetrics and Gynecology.**

Pittsburgh, Pa., July 7, 1939.

The next written examination and review of case histories (Part I) for Group B candidates will be held in various cities of the United States and Canada on Saturday, January 6, 1940, at 2 p. m. The Board announces that it will hold only one Group B, Part I examination this year prior to the final general examination instead of two as in former years. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held in June, 1940.

Applications for admission to Group B, Part I examinations must be on file in the Secretary's office not later than October 4, 1939.

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted by the entire Board, meeting in Atlantic City, N. J., on June 8, 9, 10 and 11, 1940, immediately prior to the annual meeting of the American Medical Association in New York City.

Applications for admission to Group A, Part II examinations must be on file in the Secretary's office not later than March 15, 1940.

After January 1, 1942, there will be only one classification of candidates, and all will be required to take the Part I examinations (written paper and case records) and the Part II examinations (pathological and oral).

At the annual meeting of the Board, held in St. Louis on May 12, 1939, it was found necessary, on account of increased administrative expenses, to increase the application and examination fees. Effective May 12, 1939, these are as follows: Application fee \$15, payable upon submission of application for review by Board; examination fee \$85, payable upon notification to candidate of acceptance of the application and assignment to examination. Neither fee is returnable. This increase does not apply to candidates whose applications were filed prior to May 12, 1939.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

## MEDICAL JURISPRUDENCE<sup>†</sup>

### QUALIFICATIONS TO BE AN EXPERT WITNESS

By HARTLEY F. PEART, ESQ.  
San Francisco

About nine out of every ten suits against physicians or surgeons are concerned with either of the following issues:

1. Was a proper and approved practice followed?
2. If not, did the failure to follow it cause the injury complained of?

The law is well settled that either of these two issues is a question of scientific knowledge and fact, and, therefore, with few exceptions can be testified to only by expert wit-

<sup>†</sup> Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

nesses. Such experts are persons who, through extended study or practice, have acquired extraordinary knowledge upon the particular subject of inquiry. As to whether or not the witness has that extraordinary knowledge which qualifies him to state whether or not an approved practice was followed, and if not, whether the failure to follow it caused the injury, is a matter left solely to the best judgment of the trial judge. In view of the fact that the witness may be a person unknown to the judge, possessed of an appearance more professional than his ability, and often the only person present to establish his experience or other qualifications, instances may arise in which a witness who is lacking in the true qualifications of an expert is allowed to testify as such.

So far as present rules of law are concerned, it is conceivable that a professor in an unimportant medical school might by his mere insignia of office be permitted to testify in a case involving insanity even though he may actually have had little medical knowledge of insanity. The same would be true in reference to consulting physicians to asylums who, as a matter of fact, may have never visited the asylum, and assistant coroners who receive their appointment through political influence, both of whom may have no real attainment as pathologists. Actual instances of such testimony are not hard to find. In Alabama a physician who had received his doctor's license, had practiced one year and had then been a lawyer for sixteen years without continuing the practice of medicine, but continued to keep up his medical reading, was allowed to testify as an expert. In Illinois a graduate of a chiropractic school was permitted to testify as an expert in a case involving an injury to spinal vertebrae. In New York, the plaintiff in an action alleged that during the performance of an ethmoidectomy the doctor had permitted one of his instruments to penetrate from the nasal to the orbital cavity and had thus severed the optic nerve, thereby causing blindness. Plaintiff's expert testimony consisted of that given by a 26-year-old physician who had been admitted to practice only three years before, was not a member of any hospital staff, who was in no way an eye specialist, and who never in his life had performed an ethmoidal operation. The Court admitted his testimony as that of an expert. In a New Jersey case a physician who was not shown to have been a surgeon or oculist was allowed to testify as to how a defendant surgeon could have avoided doing any injury to the patient.

The courts of California have apparently been able to avoid making such serious mistakes of judgment as these and by and large have strictly applied a fair rule, which is to the effect that to qualify as an expert in a malpractice case against a physician, the witness must not only show himself to possess learning and knowledge of the subject of inquiry sufficient to qualify him to speak with authority on the subject, but also a familiarity with the treatment and degree of care and skill of other practitioners in the locality in question, sufficient to qualify him to state whether or not the defendant's treatment was consistent with what other physicians in the exercise of reasonable care might do under similar circumstances. However, since even in California the judge at the trial has sole discretion in passing upon the qualifications of witnesses, the remedies suggested should be of interest to California physicians and surgeons. These suggestions include:

1. Submit all questions of scientific fact to "official experts" who shall conduct a hearing of their own and submit their conclusions to the Court.

2. Submit all issues of scientific fact to a jury of experts rather than a jury as is used for trials generally.

3. Give to the trial judge the right to call experts of his own choosing whenever he feels those of the parties are insufficient.

4. Give to the trial judge a right to comment on the qualifications and the mercenary motive of all of the expert witnesses who have testified.

This latter suggestion is one which is already in effect in California and being used by the judges here more and more as time goes on. It is probable that none of the other suggestions above named are alone sufficient to meet the problem of satisfactorily proving a scientific fact, nor is there much likelihood that they will in the near future be adopted. In the meantime, there is the age-old remedy of procuring an attorney who is thoroughly trained in the art of cross-examination and therefore able to discredit statements of a witness who declares himself to be an expert when he is no such thing.

## SPECIAL ARTICLES

### INDEX

1. *Poliomyelitis: Some California Statistics.*
2. *Dangers of Self-Doctoring.*
3. *Health Examinations Before Marriage: New California Laws.*
4. *Coronary Occlusion.*
5. *Choosing One's Doctor.*
6. *Sulfanilamide and Sulfapyridin in the Treatment of Various Infections.*

### POLIOMYELITIS: SOME CALIFORNIA STATISTICS\*

*California Poliomyelitis Cases, Deaths and Rates, 1910-1938*

Year	Cases	Case Rate*	No. Deaths	Death Rate*
1910	139	5.8	29	1.2
1911	55	2.2	13	.52
1912	531	20.3	123	4.70
1913	90	31.3	33	1.21
1914	56	2.0	27	.95
1915	62	2.1	19	.65
1916	145	4.8	24	.79
1917	69	2.2	26	.82
1918	76	2.3	20	.61
1919	27	0.8	9	.27
1920	75	2.1	30	.85
1921	282	7.5	49	1.3
1922	62	1.6	24	.60
1923	251	6.0	33	.79
1924	192	4.3	34	.77
1925	821	17.7	144	3.1
1926	187	3.9	30	.62
1927	2,298	25.6	224	4.42
1928	303	5.7	81	1.53
1929	170	3.1	46	.83
1930	1,903	33.2	157	2.74
1931	293	5.0	48	.82
1932	191	3.2	31	.52
1933	171	2.8	14	.23
1934	3,396	55.1	110	1.79
1935	837	13.3	67	1.07
1936	388	6.1	38	.59
1937	663	10.2	78	1.19
1938	117	1.8	16	.24

\* Per 100,000 population.

### California State Department of Public Health Cases of Poliomyelitis Age Distribution

	1923-1927		1928-1932		1933-1937	
	Cases	%	Cases	%	Cases	%
1 year	121	4.40	86	3.01	98	1.80
1-4	917	33.36	671	23.46	882	16.17
5-9	756	27.50	935	32.69	1,399	25.65
10-14	473	17.21	465	16.26	1,046	19.17
15-19	224	8.15	248	8.67	561	10.28
20-24	99	3.60	131	4.58	494	9.06
25-34	77	2.80	180	6.30	591	10.83
35-44	25	.91	57	1.99	217	3.98
45-54	10	.36	26	.91	71	1.30
55+	3	.11	12	.42	34	.62
Adult	10	.36	13	.45	8	.15
?	34	1.24	36	1.26	54	.99
Total	2,749	100	2,860	100	5,455	100

\* Statistics from the files of the California State Board of Public Health. For recent articles on poliomyelitis in CALIFORNIA AND WESTERN MEDICINE, see in issue of July, 1939, on pages 12, 16, 19, and 23.



*California State Department of Public Health  
Cases of Poliomyelitis  
Age Distribution*

	1938		1939*	
	Cases	%	Cases	%
1 year .....	1	3.42		
1-4 .....	17	14.53	29	28.71
5-9 .....	24	20.57	26	25.75
10-14 .....	21	17.95	20	19.80
15-19 .....	17	14.53	10	9.90
20-24 .....	5	4.27	7	6.93
25-34 .....	16	13.68	6	5.94
35-44 .....	5	4.27	2	1.98
45-54 .....	4	3.42	1	0.99
55+ .....	3	2.57		
Adult .....				
? .....				
Total .....	117	100	101	100

\* January-June.

*California State Department of Public Health  
Reported Cases of Poliomyelitis—By Counties 1939—  
Through First Week of July*

County	January	February	March	April	May	June	July*
Alameda .....					2		
Alpine .....							
Amador .....							
Butte .....							
Calaveras .....							
Colusa .....							
Contra Costa .....							
Del Norte .....							
Eldorado .....							
Fresno .....				1	1	3	
Glenn .....							
Humboldt .....							
Imperial .....		2			7	1	
Inyo .....							
Kern .....	1			3	4	8	
Kings .....							
Lake .....							
Lassen .....							
Los Angeles† .....			1		3	5	3
Los Angeles City .....		2	1	1	1	10	5
Madera .....							
Marin .....							
Mariposa .....							
Mendocino .....							
Merced .....							
Modoc .....							
Mono .....							
Monterey .....						1	1
Napa .....							
Nevada .....	1						
Orange .....				1	4		
Placer .....							
Plumas .....							
Riverside .....					2	2	
Sacramento .....							
San Benito .....							
San Bernardino .....					2	7	
San Diego .....					3	8	5
San Francisco .....	1						
San Joaquin .....						1	
San Luis Obispo .....							
San Mateo .....						1	
Santa Barbara .....					4		
Santa Clara .....							
Santa Cruz .....			1				
Shasta .....							
Sierra .....							
Siskiyou .....				1			
Solano .....							2
Sonoma .....							
Stanislaus .....							
Sutter .....							
Tehama .....							
Trinity .....							
Tulare .....	1						
Tuolumne .....							
Ventura .....						4	1
Yolo .....							
Yuba .....							
California† .....							
Totals .....	4	4	3	7	32	51	17

\* Through first week of July 1939.

† Los Angeles County exclusive of Los Angeles City.

‡ Cases charged to California represent patients ill before entering the State or those who contracted their illness traveling about the State during the incubation period of the disease. These cases are not chargeable to any one locality.

## DANGERS OF SELF-DOCTORING\*

It is every man's right to doctor himself, but it is not always wise. The main thing to remember is not to temporize: if an illness doesn't respond to home remedies quickly, call a doctor.

When a doctor is sick, he does not treat himself; he goes to another physician. It is not because he cannot take his medicine; it is because he knows that when he is sick his own judgment about himself is not safe. So he calls in a fellow who is well and in whose judgment he has confidence.

The simple truth is, a doctor is not always necessary in the treatment of ills. However, it is highly essential that one know with certainty *when* to use the doctor's services. This time, it is generally conceded, is in the diagnosis of one's illness. Diagnosis must not be delayed.

Any case *may* be one of those in which treatment will save life or make it useful or bearable. Those first few hours in an illness are crucial; after that, the doctor's value to a patient depends on a multitude of factors.

Some of the best physicians prescribe very little medicine. Many sick persons are not in need of medicine but rather an opportunity to be removed from a condition which has been detrimental.

The majority of all illnesses resolve without special attention. Home treatment suffices for many of them. Therefore, the wise physician often withholds medicine and gives Mother Nature and Father Time a chance. These facts have long been recognized by cultists who have claimed credit for recoveries that were uninfluenced by their mode of treatment. The doctor of medicine readily acknowledges that many sick persons get well without his ministrations. He claims only to facilitate their recovery, and to watch for danger signs.

There will be somewhere, inside, the scar tissue of the body's victory over whatever germs attacked it—but we, *per se*, will never know about it. In fact, the average body's healing powers are so great that many of us go through the siege of several actual disease entities in a lifetime without ever being aware of it.

The principal value of having a physician is that with a trained and practiced eye he can distinguish between a serious illness requiring prompt and specific treatment and a comparatively mild malady which is self-limited and will get well without particular attention. Money expended for this discriminatory service is exceedingly well spent.

Even in what in many instances the layman would term an emergency, the doctor is of less use than one would suppose. He will probably get there in plenty of time. Except in cases of excessive bleeding, from any opening in the body, those apparently drowned, and sunstroke, the speed with which the doctor makes the bedside is not invariably a vital factor. He should be well on the way to the patient, however, when there is persistent vomiting, a known high fever in the patient, when he has a persistent pain in the abdomen, or when the patient suffers a combination of severe headache plus earache. These latter, of course, and when sores appear on the genitals or anywhere that do not heal readily, there is generally indicated a possible serious complication to follow.

Besides the danger involved in delayed diagnosis, the habit of doctoring one's self has other marked dangers. An important one of these is the danger of forming the drug habit. In some homes the family medicine cabinet is literally jammed to the hinges with drugs and medicines of all kinds, from corn cures to kidney regulators. Even if the exact function and power of each of these nostrums were known, the habit of dosing up with all kinds of sundries from a loaded cabinet is rather a grim sort of pastime.

The second great danger is that of wrong- or overdosing. When the doctor prescribes medicine for a patient, he has

\* From the Treasury Department, United States Public Health Service, Washington.

studied that patient carefully beforehand. He has, if he is orthodox in his practice, asked a number of preliminary questions. Many of these, to the patient, will seem not to bear upon the illness. When he has learned all he can about the case, it is his job to decide how much of any particular kind of medicine the patient requires. He understands that doses of medicine of the same quantity do not fit all people. Most people who are not physicians do not know this fact. Thus, when they begin to doctor themselves, they are in danger of taking an overdose of a remedy that may do great harm if taken in quantity.

Doctors have a very good practice of writing directions on bottles of medicine, telling exactly how much and at what hours this medicine should be taken. Normally, when a doctor does this, we follow his directions. Most of us feel that we have called the doctor in in order to get well, and we do as he advises.

Otherwise sensible people, when they begin to doctor themselves, seem to follow the principle that if a small dose does a little good, a large dose will effect a practically instantaneous cure for almost anything. It is a bit optimistic to expect the best results from such a hit-and-miss practice. This sort of reasoning, applied to many medicines, may lead to the grave—often with a lingering death as prelude. This statement is especially true in the case of headache and stomach remedies: one cannot be too cautious about taking them.

Never under any circumstances, where a doctor is available, should one give any kind of medicine to a friend. If you make a mistake, and give him something that makes him very ill or kills him, the law will hold you to account no matter how good your intentions were. If, in a spirit of helpfulness, you give a friend a remedy or recommend a remedy to him that results in his death, the mere fact that you gave this medical advice in the helpful spirit will be of small comfort or help to you before the law. Incidentally, even if your act did not come within the law's notice, the fact holds.

Never guess about your own trouble. If it becomes necessary for you to cure a disease, don't run the risk of prescribing for yourself. Get a doctor's diagnosis. You may hit on the right thing, but the chances are overwhelmingly against any such luck.

It is well to know, in this connection, that there are no real tonic medicines. No medicine gives us strength; only food, rest, exercise, cure of disease and the natural resiliency of the body can do this. Cough medicines, unless heavily charged with narcotics, are seldom very effective; gargling is not a cure for sore throat or respiratory disease. Gas pains and gastric acidity, manifesting themselves as dyspepsia, may sometimes be relieved temporarily by simple remedies; but if there is real underlying disease the sufferer had best seek competent medical attention promptly. If taken often, sleeping drugs lose their effectiveness and may prove accumulatively harmful. An honest doctor will tell you these things.

Don't save your old prescriptions or old bottles of medicine: clean out your family medicine cabinet frequently. Always keep it well lighted. A well stocked cabinet, by the way, will contain these things: Common salt and soda, aromatic spirits of ammonia, mercurochrome or well guarded tincture of iodine, adhesive tape, sterile cotton and gauze bandage, boric acid, thermometer, a hot-water bottle, and an ice bag. These, and a good scissors, suffice for the current use of a normal healthy individual.

The human body is a complex machine working smoothly when the parts are properly balanced. When these parts show signs of being out of order, a good repairman—a good doctor—should first be consulted. Let him study the case and make recommendations, then follow his advice.

Get plenty of fresh air, plenty of sleep, plenty of rest, plenty of recreation. Keep your rooms well ventilated, study your diet, keep your circulation stimulated. At all

times and in all things be moderate. Under all circumstances, keep your head and do not get excited in the face of illness or what may seem to you an emergency. Good health is mainly a matter of good sense.

## HEALTH EXAMINATIONS BEFORE MARRIAGE: NEW CALIFORNIA LAWS\*

Regarding: Premarital Examinations and Blood Tests; Questions Concerning A. B. 493 and S. B. 173; Physicians May Be Requested to Answer to Patients

Every man and woman marrying in California on and after September 19, 1939, must present to the county clerk a certificate signed by a physician before a marriage license is issued. The certificate will state that an examination, including a standard blood test, has been made and that, in the opinion of the physician, the person is not infected with syphilis or is not in a stage of that disease which may become communicable to the marital partner. The examination and blood test must be made not more than thirty days before a marriage license is issued.

The law was passed by the California Legislature in 1939 to protect the health of persons marrying in this State and to prevent an infected mother from giving her baby syphilis before it is born.

Syphilis hides by imitating other diseases. In many cases, early symptoms are so slight as to go unnoticed by the infected person. Only a physical examination and a blood test will reveal that the disease is present.

### How the law works

1. The applicant for a marriage license consults a physician for an examination and blood test. The physician sends a specimen of blood to a laboratory.
2. The laboratory makes a confidential report of the result of the test to the physician and to the California State Department of Public Health and transmits to the physician the certificate form.
3. The physician completes the certificate form and gives it to the applicant.
4. The applicant gives the certificate form to the county clerk, who then issues the marriage license.

### Where can I get an examination and blood test?

You may be examined by your family physician, by doctors working in free clinics for the control of venereal diseases, by the medical staff of state and local public hospitals, or through arrangements made with your local health department.

The examination will include a blood test. The doctor making the examination may send the blood specimen to an approved private laboratory, to the free local public health laboratory or, if there is no local public health laboratory in your county, to the free state laboratory for a test.

### When should I have the examination done?

It may be made either before or after applying to a county clerk for a marriage license. The examination and blood test must be made not more than thirty days before the day the marriage license is issued.

### How accurate are blood tests?

The modern blood test for syphilis done by a competent laboratory is very accurate. Only a physician can interpret a blood test. In case there is any question about the result of the test, the state laboratory is required to make a check.

### How soon can I know the results of my test?

That depends upon where you live. If the laboratory is in your city, the physician should know the result the day

\* For additional information, see CALIFORNIA AND WESTERN MEDICINE, July, 1939, pages 6, 63 and 71. The questions and answers here printed are from the *Bulletin* of the California State Board of Public Health, July 1, 1939.



after the blood is sent to the laboratory. If the blood has to be sent to another city, or to the state laboratory at Berkeley, it may take as long as a week, depending upon the distance you live from the laboratory. The results of the test may be doubtful and it may be necessary to have another test made before the physician can make a decision. You should allow plenty of time.

#### **Will a blood test always reveal syphilis?**

No. Blood does not become positive to a test until about six weeks after infection. Only a physician's examination will reveal syphilis if it is present in this early stage. For the protection of your own health and for the sake of the person you intend to marry, it is important that you be completely honest and frank with the doctor.

#### **If I have syphilis will I be prevented from marrying?**

No. If you have received sufficient treatment, you cannot give the disease to the person you marry and the physician will give you a certificate. The result of your blood test does not, in itself, determine if syphilis is in an infectious stage. You may have a four-plus Wassermann and yet not be able to transmit syphilis because you have had sufficient treatment to make you noninfectious. Only a physician can tell if there is danger that you may infect another person.

#### **If I have syphilis which is noninfectious, am I cured?**

No. Although you may marry with safety, you are not necessarily cured. The amount of treatment necessary to make you noninfectious is not sufficient to prevent the further progress of the disease and the crippling late stages which so often occur. Your doctor will tell you how much more treatment is necessary. This will depend upon the kind and amount of treatment you have had in the past, the length of time you have had syphilis, and other factors.

In the case of women who have had syphilis, additional precautions must be taken during pregnancy. Most physicians agree that no matter how much treatment the expectant mother has had, it is wise for her to be treated during pregnancy. This is done to insure the birth of a healthy baby, even if the expectant mother has been pronounced cured in the past.

#### **Suppose the doctor refuses to give me a certificate?**

Then it will not be possible for you to marry in California until you have had enough treatment to make you noninfectious, unless both of you obtain a court order. The amount of treatment necessary varies with different patients and must be left to the judgment of your physician.

You should start treatment at once. If you are unable to pay the full price for treatment, the State Department of Public Health will furnish your doctor with free drugs so he can treat you at reduced rates. In many places in California there are free clinics for the treatment of patients who cannot afford private care. You can obtain a list of them from your physician, from your local health officer, or from the State Department of Public Health.

#### **What shall I tell the person I want to marry?**

Ask your physician to discuss your case with your fiancé. If the person you intend to marry is understanding, the marriage will not be wrecked but will only be postponed. There is a much better chance for a happy marriage if there is a mutual understanding before the ceremony than if one of the persons brings infection into the marriage relationship.

#### **What about persons who come to California from other states to marry?**

They must have certificates, too. If it is more convenient to be examined in their own state, they can write to the California State Department of Public Health for a certificate form. This form should be given to the physician who makes the examination and takes the specimen of

blood. The physician then sends the form with the blood specimen to the state laboratory in the state in which the applicant lives. The laboratory fills in a portion of the form with the required information and returns it to the physician with the results of the test. The laboratory reports the result of the test to the California State Department of Public Health. After the physician has completed the certificate, it can be presented to any county clerk in California and a marriage license will be issued if other provisions of the marriage laws are complied with.

If the examination is made in another state, the blood test must be made in the state laboratory of that state. Certificates signed by representatives of private or local public health laboratories in other states will not be accepted.

#### **Will the results of the examination and blood test be public?**

No. Results of your examination and blood test are confidential. They are not part of any public record. The law provides:

"Certificates, laboratory statements or reports, applications and court orders, . . . and the information therein contained, shall be confidential and shall not be divulged to or open to inspection by any person other than state or local public health officers or their duly authorized representatives.

"Any person who shall divulge such information or open to inspection such certificates, statements, reports, applications or court orders, without authority, to any person not by law entitled to the same shall be guilty of a misdemeanor."

The certificate which you present to the county clerk will not reveal if you have syphilis. It will merely state that, in the opinion of the physician, "This person is not infected with syphilis or is not in a stage of that disease which may become communicable to the marital partner." The certificate will be filed by the county clerk. It will not be attached to your marriage license.

If you have syphilis, neither the county clerk nor the person performing the ceremony will know you are infected unless you tell them.

#### **Can I marry without having an examination and blood test?**

Under certain circumstances. The judge of the superior court in the county in which the license is to be issued is authorized upon joint application of both parties to a marriage to waive the requirements as to medical examinations, laboratory tests and certificates. He may order the county clerk to issue the marriage license if all other requirements of the marriage laws have been complied with, and if the judge is satisfied by affidavit or other proof that an emergency or other sufficient cause for such action exists and that the public health and welfare will not be injuriously affected. The order of the court shall be filed with the county clerk in lieu of the physician's certificate.

#### **Can I marry if a physician's certificate is refused?**

Under certain circumstances. If a physician's certificate is refused because one or both persons desiring to marry have syphilis in a communicable stage, both persons wishing to marry may make joint application to a judge of the superior court in the county in which they are to be married. The judge may order the county clerk to issue the license if all other requirements of the marriage laws have been complied with, and if the judge is satisfied by affidavit or other proof that an emergency or other sufficient cause for such an order exists, and the public health and welfare will not be injuriously affected. The order of the court shall be filed by the county clerk in lieu of the certificate form.

In every such case, the clerk of the court shall transmit to the California State Department of Public Health a transcript of the record and the order thereon for such

follow-up by public health authorities as is required by law or is deemed necessary by the state health director.

#### Are the court proceedings public?

The court when it is deemed necessary may, to the extent authorized by law or rules of the court, order all proceedings instituted to obtain a court order to marry without a physician's certificate to be confidential and private.

#### Is there any charge for a court order?

No. The law provides that there be no fee charged for court proceedings instituted to obtain a court order to marry without a physician's certificate.

#### Where can I obtain further information?

From your family physician, your local health officer or by writing the Bureau of Venereal Diseases, State Department of Public Health, at the State Building, San Francisco, or at the State Building, Los Angeles.

### CORONARY OCCLUSION\*

Deaths in Philadelphia, Pennsylvania, due to coronary occlusion (blockage of main artery carrying blood to the heart muscle) jumped 126 per cent between 1933 and 1937 in a total of 5,116 cases reported from this cause.

The outstanding consideration in this increase in reported mortality, according to Dr. O. F. Hedley, Past Assistant Surgeon, United States Public Health Service (*Public Health Reports*, June 9, 1939), is improvement in diagnosis. However, the writer raises the question of whether *all* the mortality from the disease may be attributed to this cause.

The problem of "fads" in diagnosis—that is, in diagnostic terms—probably explains in part the increase in reported mortality in Philadelphia. Although the aging of the population had an influence on the increased mortality from this cause, according to the report, neither is this factor sufficient to account for the increase, nor can it be attributed to any great extent to the aging of the foreign-born over and above that of the general population.

"This leaves two important considerations," says Doctor Hedley. "Improved diagnosis and the possibility of an actual increase in mortality from this cause. Of these factors, increased recognition is by far the more outstanding. In the entire annals of medical history, it is doubtful whether there was ever a disease which has been better publicized than acute coronary occlusion during the past fifteen years. At first it was regarded as a rather rare condition; later as a diagnosis which could only be made by specially qualified experts. Now it is being made by nearly every general practitioner.

"Although there were numerous refinements in electrocardiographic technique during this period, the diagnosis of acute coronary occlusion is usually based on the clinical picture as seen at the bedside, or on a history of previous attacks. While there has been a spread of knowledge concerning this disease to the mass of practitioners seeing patients in the home, by the beginning of 1933 medical staffs of large metropolitan hospitals, especially teaching institutions, usually had a very definite conception of this disease. Improvement in diagnosis in hospital practice has consisted largely in a better recognition of the fact that coronary occlusive phenomena occur more frequently during the course of so-called 'degenerative cardiovascular diseases.'"

Among other features difficult to explain solely on the basis of improved diagnosis, according to the report, is why the reported mortality from acute coronary occlusion increased so much more among white persons than among negroes. There was an increase of 137 per cent in the

reported mortality from all sources among white persons in 1937 over 1933, while among negroes the increase was only 22 per cent.

"The problem of sudden death from heart disease, especially among white males," says Doctor Hedley, "should be made the subject of well-planned research projected over a number of years. The chief importance of this problem from both a clinical and a public health point of view consists in the number of deaths among persons in the forty to sixty-nine-year age period."

"For the present," concludes Doctor Hedley, "the possibility of a certain amount of actual increase in acute coronary occlusion should be viewed with an open mind. It is possible that there are factors, besides the aging of the population and improvement in diagnosis, which may be responsible for an increase in this condition among the urban population in particular. These factors may operate either to predispose to coronary atherosclerosis or to result in the occlusion of coronary arteries previously diseased. Until more is known concerning this extremely intricate phenomenon which is responsible for so many deaths from middle-aged persons, the increase in deaths reported from so many different sources should not be dismissed summarily as due to the aging of the population, to improved standards of clinical diagnosis, or to statistical artifacts due to changes in terminology."

**Background.**—Interference with the blood supply to any part of the body seriously affects its function: thus, diminution of the caliber of a coronary artery results in serious heart impairment. Fatigue results, shortness of breath, swelling of the feet and ankles, cardiac asthma, angina pectoris, and other signs and symptoms of heart disease.

Sometimes one of the coronary arteries or its branches becomes rather suddenly blocked or occluded—usually the result of the formation of a "thrombosis," or blood clot, inside a vessel previously diseased as a result of hardening of a coronary artery. When this occurs, the part of the heart muscle receiving its blood supply from the affected artery becomes suddenly functionless, resulting in a very serious heart condition.

Acute coronary occlusion is more common among city dwellers than persons living in rural areas. Sedentary occupations are an important predisposing factor. It is especially frequent among professional men, being a leading cause of deaths among physicians. While obesity is commonly encountered in persons with this disease, exceptions are quite common. Alcohol does not appear to be an important factor. Excessive use of tobacco may play a rôle, especially in younger individuals.

The severity of the attack depends on a number of factors—size and the location of the vessel affected, amount of cardiac tissue present but out of commission, age of the patient, his general physical condition, and other similar considerations.

Sometimes death occurs immediately. Deaths from "heart attacks" of more or less prominent citizens on the golf links, at home, or in their offices, the accounts of which appear almost daily in the newspapers, are usually due to this cause. More often, these attacks are not immediately fatal, but result in a chain of clinical manifestations well known to the medical profession.

The attack may occur at any time—at work, rest, or play. Physical exertion to which the patient has been unaccustomed may precipitate an attack. Onset after heavy meals is frequent enough that coronary occlusion is sometimes mistaken for "acute indigestion." Many attacks begin during sleep.

An attack of acute coronary occlusion is as much an emergency as an attack of appendicitis. A physician must be secured without delay. The treatment of heart disease is not for amateurs. Furthermore, no single form of treatment is applicable to every case. Emergencies arise which

\* From the Treasury Department, United States Public Health Service, Washington.



tax the professional skill even of the best specialists in this field.

Concerning the increase in deaths from this cause, Dr. Paul D. White, one of America's leading cardiologists, states: "There must be a factor which is new, and I believe it to be found in the mad pace of American life today. A halt must be called."

The answer to the increase in deaths from this cause, says the Public Health Service, "lies in moderation in all things—work, play, food, drink; in avoiding overfatigue, obesity, and flabbiness from lack of muscular exercise. While life expectancy at birth has increased some twenty-five years the last century, the span of life has not increased. Life expectancy for persons past forty years of age, if anything, has become diminished. There is a crying need to slacken the tempo of our lives. Even in our recreations there is little rest."

"Considerable emphasis can be placed upon the prevention of this disease through periodic heart examinations of individuals over forty years of age. This examination should include electrocardiogram and such other means of precision as may be available to the examiners. It may be emphasized that violent exercise—such as eighteen-hole golf games and similar diversions—at least for men over forty, should not be indulged in unless the heart is in excellent condition."

### CHOOSING ONE'S DOCTOR\*

It has been said that "it requires a medical education to enable a man to choose a good doctor."

This is hardly true.

The day, of course, when the family physician was almost a member of the family is about gone. Such relationships still exist in the hinterlands, and in rare cases in urban communities. These intimacies, however, are mostly reminders of an older day.

This is not to infer, on the other hand, that the choice of a dependable family physician is next to impossible. There are certain fundamental questions about the modern doctor to which one may seek answers, and upon these base an entirely satisfactory choice. In general, here is a good procedure.

If you plan to move into a new community, inquire of your own doctor at your last residence, asking him to recommend a practitioner in the new town to which you are going. To check further, ask the secretary of your county medical society for a list of competent practitioners, ask the health officer of your city or county, or the secretary of the state medical association.

When first entering the new community, if you are not already supplied with doctors' names, ask at the hospital or local health office, or call the secretary of the local medical society and obtain a list of the general practitioners. Then make it your business to meet these men. Make specific and direct inquiries about what you want to know. If you are connected with some well-established fraternal, church, or business group, make inquiry among your associates. The good physician will not only not object to these personal inquiries, he will welcome them.

Here are questions to ask in connection with choosing a new physician:

1. Is he a graduate of a Class "A" school of medicine (as defined by the American Medical Association), or of a medical school known by recognized authorities as one of the best at the time he was graduated?

2. Is he a licensed practitioner in the state where he has office?

3. Has he had actual training as an interne in a hospital, or been associated with a practicing physician long enough to have obtained practical education in medicine?

4. Is he an active member of his local, county, and state medical society and, through them, of the American Medical Association, or any other recognized, organized body of physicians?

5. Is he of good personal habits, regarded by his fellow citizens as a desirable member of the community?

If he is the physician to fellow practitioners, that is an excellent guarantee of his ability. The fact that he is a member of the staff of a well-conducted hospital also indicates that he is usually a capable doctor.

These, too, are points to remember.

An ethical physician does not advertise his methods or cures in newspapers, give out circulars concerning his work or fees, indiscriminately distribute his picture, or put large signboards in his windows or outside his office to advertise his merits or wares.

Before considering any specialist, *per se*, consult your regular doctor and let him select the man if one is necessary.

No good doctor guarantees a cure; avoid him who will "take no money until a cure is brought about": this is a trick to snare the unwary. Likewise, avoid him who requires the fee in advance to cure a chronic disease.

Choose the doctor who works directly from his established residence or office and does not travel out of town or across state borders to seek his patients.

Avoid the boaster: a good doctor does not brag of his cures or suggest that they are made by secret methods. It is well to remember that there are no secrets in the medical profession.

The straightforward practitioner will not restrict his methods of treatment by dogmatic adherence to any "system" which declares all diseases are caused, for example, by colonic, liver, dietary, podal, mental, or any other type of single defect. Medical science recognizes no royal road to recovery, but proceeds upon such facts as general science has discovered and upon such theories as it may use in the absence of proved fact. It expands and constantly changes through added discovery. What is thought good practice today may, as the result of a new discovery, be replaced by a different practice tomorrow. It is through the testing periods of these new discoveries that so-called "medical fads" have their heyday.

After you have made your choice, it is wise policy to stick to one doctor.

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*Distinguished Service Medal.*—Concerning the second medal that was awarded for distinguished service to scientific medicine at the opening general meeting at the recent St. Louis session. *The Journal of the American Medical Association* states:

"The recipient of this medal is chosen by a process of selection which insures choice of an outstanding physician and scientist. Any physician who wishes to nominate a candidate for the Distinguished Service Medal may send his nomination to the chairman of the committee, Dr. E. L. Henderson of Louisville, Kentucky. This committee sends five nominations to the Board of Trustees of the American Medical Association, which then selects three names from the five. The three names are presented to the House of Delegates at the opening of the meeting, which will on this occasion be Monday morning, May 15. The House of Delegates votes immediately and the recipient of the honor is presented with the medal on the following night.

"Last year the first medal was awarded to Dr. Rudolph Matas, distinguished surgeon of New Orleans.

"By this award the American Medical Association indicates its recognition of scientific advancement as one of the main functions of organized medicine. Fellows of the Association can cooperate by sending to the chairman of the committee the names of those whom they believe to be entitled to such an honor, together with a record of their services to science."

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\* From the Treasury Department, United States Public Health Service, Washington, May 26, 1939.

## SULFANILAMIDE AND SULFAPYRIDIN IN THE TREATMENT OF VARIOUS INFECTIONS\*

By CHESTER S. KEEFER, M.D.

Boston, Massachusetts

### RESULTS OF TREATMENT OF PNEUMONIA WITH SULFAPYRIDIN

From the results that have been published concerning the effect of sulfapyridin in the treatment of pneumonia in man, an attempt has been made to establish two points: (1) that fatality rates are reduced following the use of the drug, and (2) that the duration of the disease has been shortened. For example, in a series of 100 cases reported by Flippin, Lockwood, Pepper, and Schwartz,<sup>19</sup> a fatality rate of 4 per cent is recorded. If the three fatal cases, which were excluded because they were inadequately treated, are included, the fatality rate in the 103 observed cases is 6.7 per cent. Of these cases, *only eight showed bacteremia*. Other series of cases report fatality rates varying between 1.7 and 10 per cent. Unfortunately, many of the reports do not reveal the type of pneumococcus or the frequency of bacteremia, and the fatality rate in the control series is often stated to be between 1.7 and 22 per cent. One cannot decide, therefore, on a basis of the cases reported so far, how much one can influence the course of pneumococcal pneumonia with sulfapyridin alone in a statistically significant group with bacteremia and an expected high death rate.

The results of Finland and his associates<sup>20</sup> in our clinic, which were reported at the recent meeting of the American College of Physicians, are significant, since they include the results of the use of serum and sulfapyridin, alone and in combination during the same period, and information concerning age distribution and the incidence of bacteremia is available for all three groups. They found that the fatality rate in 167 cases which were treated with specific serum was 13 per cent. The incidence of bacteremia in this group was 29 per cent and, as usual, it was somewhat higher in the older-age groups. Of the ninety-five patients treated with sulfapyridin, the fatality rate was 15 per cent. However, the incidence of bacteremia in this group was only 17 per cent and, for patients over 60 years of age, only 14 per cent. This indicates quite definitely that the infection in this group was of a milder nature than the group that was treated with serum alone. The 15 per cent fatality rate in this group probably indicates a reduction in the expected fatality rate, but more cases are needed before one can be certain.

In a third group of eighty cases which were treated with both sulfapyridin and specific serum, the fatality rate was 22 per cent. This group contained a greater number of older patients and the incidence of bacteremia was 50 per cent, which is about twice that in the patients treated with serum alone and about three times that with sulfapyridin alone. From all previous experience, it would be expected that the fatality rate in such a group of patients would be considerably greater. Eighty-one per cent of the patients were over 40 years of age and 34 per cent were over 60 years of age. Among the twenty-seven patients over 60, sixteen or 59 per cent had bacteremia. From past experience in similar cases not treated by specific measures, the average fatality rate in this age group with bacteremia is between 75 and 90 per cent; with specific serum treatment it is about 50 per cent.

\* The discussion appearing in this section of CALIFORNIA AND WESTERN MEDICINE is an appendix to the article by Doctor Keefer, also printed in this issue. (See on page 81, and also the footnote on page 84.)

19. Flippin, H. F., Lockwood, J. S., Pepper, D. S., and Schwartz, L.: The Treatment of Pneumococcal Pneumonia with Sulfapyridin—A Progress Report on Observations in One Hundred Cases, J. A. M. A., 112:529, 1939.

20. Finland, M., Spring, W. C., and Lowell, F. C.: Specific Serotherapy and Chemotherapy of the Pneumococcal Pneumonias, Ann. Int. Med., 12:1816, 1939.

These observations would seem to indicate that the most effective way to use sulfapyridin is in combination with specific serum. They also suggest that sulfapyridin alone may reduce the fatality rate, especially in the milder cases in which the incidence of bacteremia is low.

The reports of Barnett, Hartmann, Perley, and Ruhoff,<sup>21</sup> and McKhann,<sup>22</sup> in the treatment of pneumococcal infections in infants and children with sulfapyridin, indicate that the drug frequently causes a definite improvement in the course of the disease within twenty-four to thirty-six hours after starting treatment.

**Dosage.**—In administering sulfapyridin, it is well to remember that the drug is quite insoluble and may be absorbed irregularly and slowly from the gastrointestinal tract, so that it is necessary to do quantitative examinations in the blood at frequent intervals. It is desirable to obtain a concentration in the blood of at least 5 to 7 milligrams of free sulfapyridin per 100 cubic centimeters whenever possible, and to attempt to keep this level constant until clinical improvement is definite, and then to continue it for at least three to five days. Since the sulfapyridin precipitates out of solution when the concentration is below 30 milligrams per cent, it is highly desirable to keep the fluid output up to at least 2,500 to 3,000 cubic centimeters a day.

The plan for dosage that we have used is to give 5 grams during the first 24-hour period, and then 4 grams a day until clinical improvement occurs. We have generally continued the drug, when it is given alone, for three or four days after the temperature is normal, the pulse rate has been reduced, and the signs in the lung show no evidence of spreading. Very often, one finds that the fever disappears within twenty-four and thirty-six hours, but the pulse rate continues to be elevated, and the patients still feel and look ill. This is in striking contrast to the appearance of the patient who makes a prompt recovery following specific serum treatment, since, when the temperature falls, the patient feels and looks well.

When sulfapyridin is given together with serum and the results are satisfactory, it is often possible to discontinue the drug within thirty-six hours after it is started, since many of the patients are greatly improved within this time.

**Side Effects of Sulfapyridin.**—A most troublesome side-effect is the anorexia, nausea, and vomiting\* which occur in most of the patients. This symptom is one that may necessitate discontinuing the drug. If it occurs and the drug is not discontinued, it is imperative that the fluid intake be maintained by intravenous injection, since we have seen oliguria and nitrogen retention follow the vomiting attacks in these patients. Another point worth noting is the fact that, when vomiting occurs, very little of the drug may be absorbed, so that frequent determinations of sulfapyridin in the blood are necessary.

The other side-effects from this drug are the same as those following sulfanilamide, such as agranulocytosis, hemolytic anemia, and toxic hepatitis; and perhaps, in addition, renal damage.

All of these features must be looked for constantly in every patient receiving sulfapyridin.

### SUMMARY

In summing up the results of sulfapyridin treatment of pneumococcal pneumonias, the following tentative statements would seem justifiable:

Sulfapyridin has a striking effect on the course of pneumococcal infections in infants and children at an age period when both the fatality rate and the incidence of bacteremia are low. In adults, the best results seem to be obtained when sulfapyridin is used along with specific serum. This has been brought out by Finland, Spring, and Lowell<sup>20</sup> in a

(Continued in Back Advertising Section, Page 46)

21. Barnett, H. L., Hartmann, A. F., Perley, A. M., and Ruhoff, M. B.: The Treatment of Pneumococcal Infections in Infants and Children with Sulfapyridin, J. A. M. A., 112:518, 1939.

22. McKhann, C. F.: Personal communication.

\* Inasmuch as the vomiting is due to the central action of the drug, we have not found any way of preventing it.



## TWENTY-FIVE YEARS AGO†

### EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XII, No. 8, August, 1914

From Some Editorial Notes:

*Tuberculosis Number.*—The special "tuberculosis day" at the last meeting of the State Society, in Santa Barbara, was a very attractive feature of the session and drew an excellent attendance. Some of the papers evoked considerable discussion, and all of them were well worth listening to and thinking about. It is, therefore, with much pleasure that they are here gathered together and presented in one number of the JOURNAL where they may be the more easily referred to in the future. . . .

*A Helping Hand.*—Quite a number of new advertisers have come along and taken space in your JOURNAL recently, and are to that extent helping you. Are you helping them? Have you looked through the advertising pages and noted the new advertisements? Occasionally an advertisement appears as a test of whether interest is taken in the JOURNAL advertisers or not. . . .

Please look through the advertising pages of each issue, and take as much interest in your advertisers as they take in your JOURNAL. . . .

Certainly, if you want to have a strong JOURNAL and a strong Society, one of your duties is to help in every little way that you can; this is one way in which you can help, and help a whole lot, without going to any expense or trouble to do it. Read your own advertisements and deal with your own advertisers.

*Tuberculosis.*—No more interesting session of the recent meeting in Santa Barbara, both in point of attendance and in importance, took place than that prepared by the California Association for the Study and Prevention of Tuberculosis. The papers and the discussions thereon gave evidence that the profession is awakening to the fact that tuberculosis, far from being a solved problem, is one of the greatest, if not the greatest, questions at present confronting it. It is to the discredit of scientific medicine that the great sociologic and economic questions involved have been left of late largely for their solution to the laity. Not only is this true, but the profession as a body has been inattentive to the problems of early recognition and scientific treatment of the disease. The charge can be brought more directly home when one sees the indifference manifested by the medical schools in the teaching of the subject. . . .

*American Medical Association—San Francisco, 1915.*—Largely to aid in commemorating the fact that scientific medicine and sanitation based thereon dug the Panama Canal, the American Medical Association, by its House of Delegates at the Atlantic City session in June last, voted to hold the meeting for 1915 at San Francisco. The time will probably be the third week in June, 1915. This will be the fourth time the Association has met on the Pacific Coast; in 1894 it met in San Francisco and all of the various sections held their meetings under one roof; in 1905 it met at Portland, Oregon; in 1911 it met in Los Angeles; next year it will again meet in San Francisco, after twenty-one years, and again all the sections will meet under one roof. The Exposition directors have kindly placed the huge audi-

(Continued in Front Advertising Section, Page 15)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

## BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M. D.  
Secretary-Treasurer

### Board Proceedings

A regular meeting of the Board of Medical Examiners was held in Native Sons Hall, July 10 to 13, 1939, at which approximately 240 applicants, consisting of physicians and surgeons, drugless practitioners and chiropodists, wrote the three-day, nine-subject examination.

The following changes in status of licentiates were made:

Harry Asher (chiropodist), license revoked July 13, following hearing on alleged illegal operation.

Sharon M. Atkins, M.D., license restored July 10, placed on probation for five years.

Henry Gross (naturopath) found guilty July 12 of practicing beyond the limitation of his license and placed on probation for a period of three years.

Shuah Milton Mann, M.D., license revoked July 13, following hearing of charges of aiding and abetting, also alleged illegal operation.

Woodward B. Mayo, M.D., certificate restored July 13, placed on probation for a period of five years.

Virgil McCombs, M.D., license revoked July 11, following hearing of charges of alleged use of fictitious name and aiding and abetting.

Harold E. Morrison, M.D., certificate (revoked October 19, 1937) restored July 10.

James T. Murray, M.D., license revoked July 13 on a charge of alleged addiction to narcotics.

Walter M. Thorne, M.D., license revoked July 13 on a charge of alleged addiction to narcotics.

Jesse C. Ross, M.D., license restored July 10 because of reversal on appeal of original conviction on which his license was revoked February 11, 1937.

Thomas Franklin Thorp, M.D., was on July 13 found guilty of aiding and abetting and placed on probation for a period of two years.

Donaciano Trevino, M.D., license revoked July 11, based on conviction of violation of the Harrison Narcotic Act.

James Cushing Weld, M.D., license revoked July 13, based on aiding and abetting, also use of fictitious name.

Orel Alvin Welsh, M.D., license revoked July 12, based on the record of his conviction of alleged illegal operation.

\* \* \*

### News

"On July 1 the California State Board of Chiropractic Examiners will require students in chiropractic schools to submit finger prints and photographs. Copies also will be sent to the civilian files of the Federal Bureau of Investigation in Washington, D. C. Dr. Joseph T. Stacy of Sacramento, secretary of the board, described the step as a protection for the public. The board is trying to eliminate the chances of stolen or forged certificates. . . . The chiropractors of this State thus will become the first professional group in the country to use the finger-print system of protecting the public, according to Doctor Stacy. . . . The Board of (Chiropractic) Examiners is to be congratulated on this step. Finger-printing of professional people will do much to wipe out the public aversion to finger-printing and will hasten the day when universal finger-printing will be the practice." Editorial, *Sacramento Union*, June 26, 1939.)

(Continued in Front Advertising Section, Page 26)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.





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(Continued from Page 31)

our natural resources, development of institutions, and education of a new type of specialist, the general practitioner, and the public.

"America is fortunate to find within its boundaries an array of specific climatic types, all types of seashores from Nordic to subtropical, high altitudes, and deserts. But the biologic effects of our different climatic types have to be evaluated. Our thermal mineral springs, muds and moors must be standardized; indications and limitations must be determined; unwarranted claims must be weeded out.

"The American Medical Association has a committee on spas and health resorts. This committee has a tremendous job. To be efficient, it should be supported by state committees and interstate special field committees.

"The development of American health resorts should be based on national characteristics, type of resources and standards of living."

Some of the errors that vacationers frequently make are faulty selection of the place of vacation, continuation of faulty habits of living, failure to utilize climatic factors, overexposure to climate, spending too short a time on vacation and excessive activity during it.

The author points out that climatic change may be stimulating or sedative and that the type of climate selected for the vacation should depend on such factors as the age and constitution of the vacationer, the climate to which he is accustomed, and the nature and stage of the chronic disorder to be influenced, if any.

"While the northern climates are generally considered stimulating and the southern climates as sedative," he says, "the element of relativity must be estimated. For example, the late fall climate of North Carolina will be stimulating to the Florida farmer and sedative to the New York business man. The latter will find the fall climate of Maine

stimulating, while the New England fisherman, accustomed to drenching waves and strong winds, will find it mild."

A sedative climate is advisable for the feeble aged, delicate children, and persons with such diseases as rheumatic heart disease, chronic nephritis (inflammation of the kidney), and rheumatoid arthritis.

Mentioning some of the characteristics of present vacation migrations, Doctor Singer says the vacationers spend annually an estimated \$5,000,000,000. About 70 per cent of the migrations take place in the summer, about 20 per cent in the winter, and about 10 per cent in the fall and spring.

There is a distinct predominance of vacationers from the northeastern and midwestern states. Typical vacation states are New England, New York, New Jersey, Florida, the Gulf states, California, the Great Lake states, and the desert states.

Seashores, lakeshores, altitudes, and deserts, respectively, are the most popular vacation sites. Tourists staying less than ten days within a state constitute about 65 per cent of the migrants.

**Summer Diarrhea in Babies.**—Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-four formula and replaced with eight level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. Three to six teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. For samples write to Mead Johnson & Company, Evansville, Indiana.

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**Though Microbes Kill and Destroy, Life Couldn't Exist Without Them.**—Microbes are killers and destroyers, yet the whole scheme of life on this earth would probably be doomed without them, Dr. Theodor Rosebury, New York, declares in *Hygeia, The Health Magazine*.

"Life is built on death and destruction," he explains. "Without microbes, decomposition of the dead and of the waste products of the living would stop, and a link in the continuous chain of life on earth would be broken. Unless artificial means could be found to join the ends, we and all other living things would follow the microbes, swept by starvation into the limbo.

"Green plants are the chemical base of supply. With the sun's help they build, out of their simple food, all the complex materials of life. These products of plants are the food of animals, which cannot build, as plants do, from the ground up. Animals eat plants, or else they eat other animals that have eaten plants."

Likewise plants must use as food the products of animals. "But plants cannot digest the complex substance of animal matter," Doctor Rosebury points out. "Their specialty is building, not wrecking. Microbes undertake the wrecking, the digestion, in their place.

"Different specialized groups of germs divide the work. Some of them kill us. Then other microbes get busy. We carry them with us, and while we live we can hold them in check. When the barricades of our resistance are battered down, from the elaborately fashioned and magnificently joined furniture of our tissues they make the sawdust that is plant food—carbon dioxide, water, nitrates.

"They do the same with other animals and with dead plants and with the products of both.

"If decomposition ceased, the mechanism of the world of life would run down quickly, probably within a single season. The fertility of the soil would vanish. Plant

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growth would come to an end, seeds would not germinate, and we would face starvation. There would be reserves of food available for us, of course, and while we were consuming them, attempts would be made to restore the continuity of life by artificial means.

"Chemistry would become the hope of the world, if only its possibilities could be recognized and its potentialities developed without fatal delay. Most of the useful things microbes do can be done now by strictly chemical means. Usually the chemical methods are slower and smaller in scale. Whether they could be adapted to the vast scale of the whole world and used to replace microbes and keep the world alive, no one can say.

"No waste could be permitted, since that which normally finds its way back into service by itself would have to be returned by human intervention."

Of course, the first effects of ridding the world from germs would be beneficial, the author says. Large numbers of the sick would begin at once definitely to get well; infection would vanish. The healthy might find a new perfection of health, as all of us harbor microbes which tax our strength in many ways. If they were eliminated, our reserves of strength might give us increased vitality. But when mankind would be forced to realize his dependence on microbes for food, these benefits would become meaningless.

**Aching Stomachs Are Not Always Stomach Aches Even if They Ache.**—Sometimes when you think your stomach is aching it isn't, even though it is.

Harry Gauss, M. D., Denver, points out in *The Journal of the American Medical Association* that diseases of the brain and other parts of the body outside of the digestive tract may reveal themselves through symptoms in the stomach and intestines.

(Continued on Page 38)

## PRESENT VITAMIN STANDARDS AND UNITS

● Early in this decade the first International Standards of Reference and Units for vitamins defined in terms of definite quantities of the standard materials were tentatively adopted by the Permanent Commission on Biological Standardization of the League of Nations. At subsequent meetings this Commission has replaced certain of the original standard materials by the pure vitamins or preparations considered to be better adapted as standards of reference. However, the new units defined in terms of the new standards represent approximately the same biological activities as the original International Units.

Believing that the present units and the standards of reference upon which they are based will be of interest, they have been tabulated and defined:

### Vitamin A

The standard of reference (1) is a solution of purified beta-carotene in an inert oil, of such concentration that one gram of solution contains 300 micrograms (0.300 mg.) of beta-carotene. The International Unit of vitamin A is the vitamin A activity of 2 mg. of the standard solution, or 0.6 micrograms of beta-carotene.

### Vitamin B<sub>1</sub>

The reference standard (2) is the International Standard preparation of thiamin chloride. The International Unit for vitamin B<sub>1</sub> is the antineuritic activity of three micrograms (3γ) of the International Standard.

### Vitamin C

The reference standard (1) for vitamin C is a specified sample of crystalline levo-

ascorbic acid. The International Unit for vitamin C is the vitamin C activity of 0.05 mg. of this standard.

### Vitamin D

The reference standard (1) for vitamin D is a solution of irradiated ergosterol, prepared under specified conditions at the National Institute for Medical Research (London). The International Unit for vitamin D is the vitamin D activity of 1.0 mg. of this standard solution.

The International System of expressing vitamin values will undoubtedly soon become official for all authoritative agencies which concern themselves with the establishment of vitamin standards and units. Reference standards for riboflavin and nicotinic acid—both of which are of significance in human nutrition—have not been defined. However, the use of units such as micrograms or milligrams of the crystalline compounds to express riboflavin and nicotinic acid values is becoming increasingly prevalent.

The use of vitamin units of definite value permits correlation of various phases of vitamin research, particularly those phases relating to the vitamin contents of common foods and to the quantitative human requirement for these essential food factors. Although vitamin supplementation of the diet may be desirable under certain circumstances, it is apparent (3) that a well planned mixed diet is most suitable for supplying optimal quantities of the vitamins along with the other essential nutrients. The established vitamin values of canned foods (4) serve as an indication of their usefulness in formulating such diets.

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- (1) 1935. Nutrition Abstracts and Reviews, 4, 705.
- (2) 1938. League of Nations Bulletin of the Health Organization, 7, 882.
- (3) 1938. J. Am. Diet. Assn., 14, 1.
- 1938. J. Am. Diet. Assn., 14, 8.

- (4) 1935. J. Home Econ., 27, 658.
- 1935. J. Nutrition, 9, 667.
- 1938. J. Am. Med. Assn., 110, 650.
- 1938. Nutrition Abstracts and Reviews, 8, 281.

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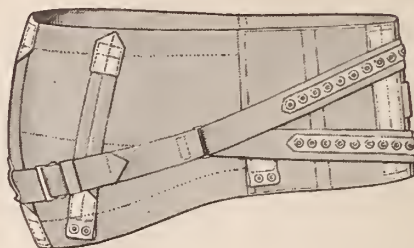


(Continued from Page 36)

"The interpretation of abdominal pain is a perennially interesting subject," Doctor Gauss says. "Every new or improved diagnostic agent that is developed renders finer methods available for the interpretation of abdominal pain. Thus the electrocardiograph (an electric instrument for the study of the action of the heart muscles) has helped to establish the fact that certain types of so-called acute indigestion, both fatal and otherwise, are actually heart disease with referred abdominal pain (telegraphed from the heart to the abdomen).

"The abdomen has been properly called the barometer or spokesman of the body. It calls attention to trouble but it does not locate it. The task remains for the physician, who must bear in mind that the responsible organ may be located anywhere in the body. The severity of the abdominal

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pain is no guide to the location of the causative agent. The most violent type of abdominal pain may arise from causes within the abdomen as in the case of gall bladder colic, or from causes outside the abdomen as in heart disease. Likewise mild abdominal pain may arise from causes originating either within or outside the abdomen.

"Certain diseases of the brain are apt to produce digestive disturbances. These are brain tumor, and other expanding intracranial lesions, syphilis, epilepsy and migraine headache. These lesions of the brain produce three types of gastro-intestinal symptoms: (1) dyspepsia, with nausea, vomiting and abdominal pain, (2) acute recurring attacks which occur in epilepsy, migraine and syphilis, and (3) the group of symptoms of peptic ulcer and other erosions of the upper part of the intestine.

"The dyspepsia symptoms occur most frequently in association with brain tumors. The acute recurring attacks of abdominal disturbances occur in cases of epilepsy, migraine and syphilis. Peptic ulcer and other erosions of the upper part of the intestine occur with brain tumors and other expanding brain lesions.

"The following symptoms, if otherwise unaccounted for, should suggest the possibility of a lesion in the brain: persistent vomiting, projectile vomiting, bizarre disturbances of the appetite, abdominal distress with or without nausea, and vomiting without relation to the taking of food.

"In deciding between gastro-intestinal disease and referred abdominal symptoms originating in disease of the brain, a careful consideration of both systems (the digestive and cerebral), aided by neurologic and x-ray examinations, is necessary.

"Digestive symptoms suggesting the presence of a lesion of the brain are usually not localized."

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**Wagner Bill's Hospital Program Criticized.**—"Section 1201 of the Wagner Bill, S. 1620, authorizes the appropriation in successive years of eight, fifty and one hundred million dollars, respectively, for the construction and improvement of general hospitals," *The Journal of the American Medical Association* says.

"Under section 1203 (a) (1), financial participation by the states is required. Naturally the extent of this participation will vary from state to state. Assuming, however, that the contributions of the Federal Government will be on a fifty-fifty basis, there will be available for the construction and improvement of government-owned general hospitals \$16,000,000 in the fiscal year ending June 30, 1940, \$100,000,000 in 1941 and \$200,000,000 in 1942. Taking \$4,000 as the average cost per bed of general hospitals, this bill would make provision for the addition of 4,000 general hospital beds in 1940, 25,000 general hospital beds in 1941 and 50,000 general hospital beds in 1942. These figures relate only to government owned hospitals and do not include such enterprises, public or private, as may be undertaken without the stimulus of a Federal subsidy.

"Over the eleven-year period 1928-1938 inclusive the average annual rate of increase in the number of beds in general hospitals was 1.9 per cent. The increases proposed in the Wagner Bill amount to a total of 79,000 beds, 16.2 per cent, in three years, or an average rate of increase of 5.4 per cent. In 1938 the general hospitals of the country were filled to 68.9 per cent of their capacity; 31.1 per cent of the beds were unused. Wherein lies the justification of the proposal to multiply threefold the normal increase of hospital facilities?"

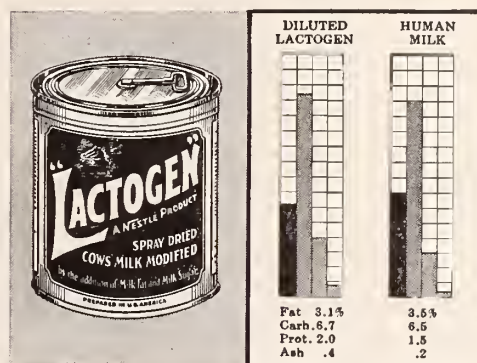
**Rectal Area Cancers May Be Secondary.**—All malignant growths of the rectal area should be minutely examined to ascertain whether they are secondary or primary cancers, inasmuch as such conditions may have their origin in other parts of the body, Harry E. Bacon, M. D., Philadelphia, advises in *The Journal of the American Medical Association*.

Reporting seventeen cases of cancer of the breast or of organs in the abdominal cavity in which the first symptoms were those caused by malignant growths of the rectal area, Doctor Bacon points out that: "whereas in this series the disease was advanced, it must be realized that such secondary invasion may occur early and be the only extension. The condition is of importance in that it is not extremely rare, the symptoms may not direct attention to the primary growth and the extrarectal process may be incorrectly diagnosed. As a routine procedure careful palpation and visualization of the rectum in every case of suspected malignant growth are advocated."

Man has subjected animals to his use; but he has also subjected himself to many of their diseases.—*Hygeia*.

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**Reports Failure of Sulfanilamide in Undulant Fever Treatment.**—Contrary to previous reports of uniformly good results in the treatment of undulant fever with sulfanilamide, W. Turner Bynum, M.D., Chickasha, Okla., in *The Journal of the American Medical Association*, reports six cases of unsuccessful treatment of the ailment with large doses of the drug.

Undulant fever is caused by the bacterium, *Brucella*, often found in unpasteurized milk from both cows and goats.

Doctor Bynum reports that the fever and the symptoms—chills, fatigue and aches and pains—returned at various intervals in four of the six patients, after sulfanilamide treatment was discontinued. Three patients, he says, have since had much improvement of symptoms and freedom from fever after treatment with undulant fever vaccine.

**Coördination of Medical Organizations Increasing.**—A move toward greater coördination between the activities of the American Medical Association, representing the entire medical profession of the United States, and special organizations in the field of medical practice, is

reported in *The Journal of the American Medical Association*.

Confidence in the leadership of the medical profession in furthering the excellence of medical service and in solving the problems of the distribution and provision of medical care was voiced by the representatives of the American Hospital Association, the Catholic Hospital Association and the American Protestant Hospital Association in a resolution presented to the Board of Trustees of the American Medical Association at a joint meeting on February 14.

Commenting on a proposed Advisory Council on Medical Education, Licensure and Hospitals and on the conference of hospital associations, an editorial in *The Journal* says:

"At the Annual Congress on Medical Education and Licensure held in Chicago in 1938, a proposal was made by Willard C. Rappleye, chairman of the Advisory Board for Medical Specialties, for the development of a 'national council on medical education, licensure and hospitals . . . made up of representatives of the universities, medical schools, hospitals, practicing profession, specialty boards, state licensing bodies and public health agencies.' In connection with this proposal, Doctor Rappleye said, 'There are indications that the government may be urged or expected in one form or another to increase more than at present its financial support of medical care, teaching and research. It is important that the profession enter in advance an agency for assisting in such a possibility and for making constructive suggestions as to how such activities can best be developed.' During the ensuing period Doctor Rappleye has appeared before various organizations of specialists in the field of medicine and has had endorsement in principle at least of this project from some of these organizations. In discussions of this proposal it was suggested that such a movement might divorce from the medical profession its right to determine for itself its relationship to governmental activity in medical practice, delegating that function rather to this supercouncil.

"At this year's Annual Congress on Medical Education and Licensure, held in Chicago February 13 and 14 under the auspices of the Council on Medical Education and

(Continued on Page 42)

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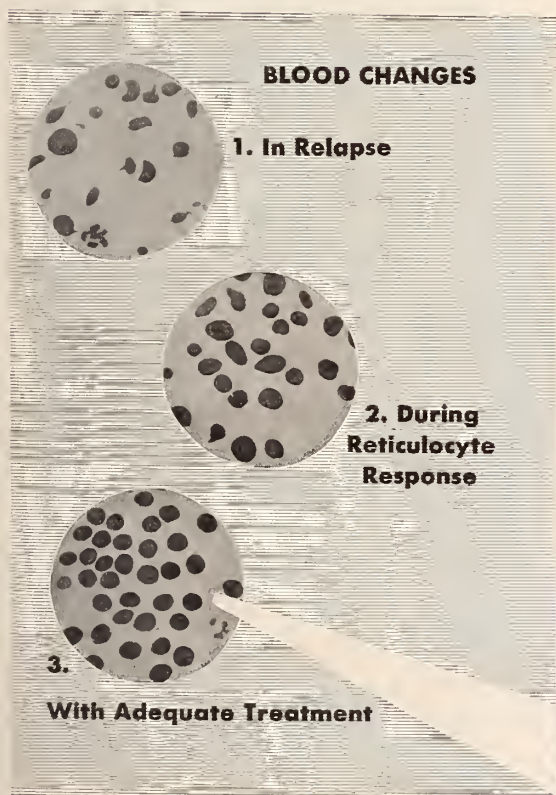
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(Continued from Page 40)

Hospitals of the American Medical Association, this proposal was advanced in a new form, now being named the Advisory Council on Medical Education, Licensure and Hospitals. Doctor Rappleye is reported to have stated that it is not now anticipated that there will be any governmental association with or support of this project. It is also stated that this council is to function purely as an advisory body for the hearing of various problems of mutual concern to those represented in the council. It is proposed that this council shall be created with the following representation:

Association of American Medical Colleges.....	3
American Medical Association.....	3
American Hospital Association.....	3
Federation of State Medical Boards of the U. S. A.....	3
Advisory Board for Medical Specialties.....	3
National Board of Medical Examiners.....	1
American College of Surgeons.....	2
American College of Physicians.....	2
American Public Health Association.....	1
The Catholic Hospital Association.....	1
American Association for the Advancement of Science, Section N.....	1
Association of American Universities.....	2

24

"At a meeting of the Council on Medical Education and Hospitals held on February 11, that council elected to recommend to the House of Delegates that such participation be approved, leaving to the House of Delegates of the American Medical Association the decision as to whether or not the American Medical Association will participate through the Council. According to the By-Laws of the American Medical Association 'no memorial, resolution, or opinion of any character whatever shall be issued in the name of the American Medical Association unless it has been approved by the House of Delegates.' This by-law obviously limits definitely any action which representatives of the Council on Medical Education and Hospitals may take as participants in the Advisory Council. On February 14 the Board of Trustees of the American Medical Association held a conference with the directors and the representatives of the American Hospital Association, the Catholic Hospital Association and the American Protestant Hospital Association leading

toward mutual consideration of problems in the field of the hospital and of medical practice. In this conference the following resolution was prepared and adopted by the representatives of the Hospital Organizations:

"The representatives of the American Hospital Association, the Catholic Hospital Association and the American Protestant Hospital Association here present desire to express to the Board of Trustees of the American Medical Association their confidence in the leadership of the medical profession in furthering the excellence of medical service and in aiding the solution of problems of the distribution and provision of medical care."

The following joint resolution also was adopted:

"It is moved that the following be the sense of this meeting: This gathering of the Trustees of the American Medical Association and of representatives of the American Hospital Association, the Catholic Hospital Association and the American Protestant Hospital Association express their gratification on the unanimity of opinion developed concerning many phases of the health problems of the Nation achieved by mutual discussion. It is recommended to the American Medical Association, the American Hospital Association, the Catholic Hospital Association and the American Protestant Hospital Association that such joint meetings of their representatives be held for the consideration of problems of mutual concern."

"It is proposed, further, that the Board of Trustees of the American Medical Association shall hold in the near future conferences with the authorized representatives of organizations in the medical field so as to bring about greater coördination between the activities of the American Medical Association representing the entire medical profession of the United States and the representatives of special organizations in the field of medical practice. No doubt by such mutual conferences the desired coördination among the practicing medical profession, the medical specialties and all the organizations auxiliary to medical practice may become effective."

**Lengthy Sulfanilamide Treatment Requires Daily Blood Study.**—Careful daily blood studies are indicated when sulfanilamide is given for any length of time and the drug should be administered only under careful supervision, H. A. Shecket, M.D., and A. E. Price, M.D., Eloise.

(Continued on Page 44)



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(Continued from Page 42)

Mich., advise in *The Journal of the American Medical Association*.

The Eloise men's paper reports the tenth death from continued use of sulfanilamide preparations in patients with a certain type of anemia (granulocytopenia, due to a deficiency of granular white blood cells). The victim had been given the drug for fifteen days and had taken a total of 960 grains.

In reviewing the cases of fatal granulocytopenia reported to date, the authors find the doses of sulfanilamide preparations ranged from 525 to 960 grains, with an average of 750 grains. The length of time that the drug was administered ranged from fifteen to thirty days, with an average of twenty-seven days of treatment.

"A close check on the blood picture was not made in most of these fatalities," the authors point out. "Blood counts were not done frequently. Three cases were not brought under the care of the reporting authors until the granulocytopenic state had been reached. The patients had been treated on the outside or had practiced self-medication.

"The use of sulfanilamide in conditions in which its value is not established should be reserved for cases under institutional direction."

## Council's Acceptance Seal Is Guide to Quality Foods.

—A dependable guide in the selection of foods of quality, advertised with truthful claims, is provided by the seal of acceptance of the Council on Foods of the American Medical Association, Harriet Morgan Fyler, Ph. D., Chicago, says in *Hygeia, The Health Magazine*.

This vital service to the American public is furnished by the Association without any cost whatsoever either to the consumer or to the manufacturer of the product involved.

"The twelve members who compose the Council on Foods are persons eminent in those branches of knowledge directly concerned with food composition and nutrition," Doctor Fyler states. "They are qualified to vouch for the merits of a food product and the advertising used in its promotion. They are not paid for their services, contributing freely of their time and knowledge. There are no fees in connection with the consideration or acceptance of foods or food advertising.

"All food products accepted by the Council are entitled to display the 'Seal of Acceptance' on the label and in advertising. The seal denotes that the food product and the nutritional claims made for it are acceptable to the Council on Foods. It is not a recommendation by the Council, neither is it their certificate or guarantee of purity. The seal does mean that the product is produced by a manufacturer who has supplied all the information demanded by the Council."

Manufacturers desiring consideration of their products by the Council must present market samples of the food, together with labels and copies of all advertising and certain detailed information regarding the composition and manufacture of the food.

"If the Council members are assured that the food is wholesome," the author says, "and that it complies with requirements as to ingredients, composition or nutritional values prescribed by them or by the government under federal food statutes, and if the label and advertising are considered truthful and proper for the food, acceptance is granted for two years. At the end of that time the product and its advertising are submitted to further review.

"Firms are permitted to use new claims in their advertising, provided such claims are first submitted to and accepted by the Council."

Information required by the Council regarding all foods submitted includes a complete list of ingredients of the product and quantities thereof; details on the culture,

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harvesting, storage, freshness, etc., of the food, and a description of all steps in its manufacture.

A report of a complete chemical analysis made by a reputable laboratory is also required. Claims for sterility must be supported by reports of microscopic and bacteriologic examination by a competent laboratory or bacteriologist.

Claims for vitamins must be confirmed either by references to authoritative studies in scientific literature or by direct biologic or chemical tests with market samples of the food product by a competent laboratory or analyst.

Conformance of the food product to terms and provisions of the federal Food and Drug Act or federal food regulations must be assured.

Even though its composition and method of manufacture comply with the Council's requirements, a product may be denied acceptance for other reasons.

"A food product is not eligible if the manufacturer or distributor is unwilling to disclose any facts regarding its preparation," Doctor Fyler points out. "The public deserves to know the ingredients of the food it purchases. There are no sound arguments justifying secrecy about the composition of foods.

"A product is not accepted if its identification label is not properly informative or if the trade name is misleading or deceptive by implication; nor if the advertising contains unwarranted nutritional or health claims, or claims of recommendation, approval or use by physicians, health or medical authorities for a specific brand of food.

"If a food and its advertising do not comply with the requirements of the Council, the manufacturer or distributor is notified and allowed a reasonable time to make recommended changes. When rejected foods or advertising comply with Council requirements they may become eligible for acceptance.

"Thus the Council hopes to institute a system of self control by which food industry will be governed within itself by established knowledge for the welfare of the public.

"Advertising acceptable to the Council on Foods discusses nutritional values but avoids specific health claims; it recognizes that health depends on the diet as a whole and on many factors other than foods and not on any one food brand nor any one type of food."

**Florida Phone Books Identify Types of "Doctors" by Suffix.**—"The users of Florida telephone directories published by the Southern Bell Telegraph and Telephone Company may now know whether a person listed therein as a doctor is a doctor of medicine, an osteopath, chiropractor or naturopath, or a practitioner of any other method of healing," says *The Journal of the American Medical Association*. "In the alphabetical list in the directory, after each name of a doctor of medicine appears the suffix 'Dr. Phys.,' and a similarly identifying suffix after the name of each cult practitioner listed. The classified section in the directory is arranged similarly to differentiate between the practitioners of the different methods of healing authorized by law in Florida.

"This change in the method of listing practitioners in the telephone directories followed the enactment of a law that requires every practitioner of the healing art to place and keep in a conspicuous place at each entrance of his office or usual place of business words or abbreviations denoting the particular kind or branch of healing in which he is lawfully entitled to engage. This law was considered as having established as a matter of public policy the de-

(Continued on Next Page)



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(Continued from Preceding Page)

sirability of public disclosure of the type of practice in which each practitioner engages.

"The telephone company, to further the public policy, and at the request of the medical profession of Florida, revised its methods of listing practitioners in its directories, a procedure it had heretofore hesitated to undertake.

"The Florida Medical Association, with the coöperation of the telephone company, has thus succeeded in eliminating a potential source of misinformation and danger for those who resort to telephone directories to ascertain the method of practice pursued by any practitioner of the healing art."

**Report First Surgical Cure of Important Heart Disorder.**—Apparently for the first time, one of the most common of congenital heart disorders has been corrected by surgical means, Robert E. Gross, M. D., and John P. Hubbard, M. D., Boston, report in *The Journal of the American Medical Association*.

This disorder, called patent ductus arteriosus, consists of the failure to close, after birth, of an opening between the artery of the lung and the main artery (aorta) from the heart to the general circulatory system of the unborn child. Thus the blood, which has not been aired in the lung, is allowed to escape into the general circulation.

While it is true that some persons have been known to live to old age with this condition, statistics have shown that the majority die relatively young because of complications arising from this congenital abnormality. The condition has been especially dangerous from the standpoint of bacterial infection, a study of a series of ninety-two such cases which came to autopsy showing that approximately one-fourth died of bacterial infection and an additional one-half died of heart failure.

In the hope of preventing subsequent bacterial inflammation of the arteries and with the immediate purpose of reducing the work of the heart caused by the abnormal passage of blood between the aorta and the pulmonary artery, the two Boston surgeons closed such an opening in a girl of seven and one-half years by tying it off. They state that "this is the first patient in whom patent ductus arteriosus has been successfully ligated."

## SULFANILAMIDE AND SULFAPYRIDIN IN THE TREATMENT OF VARIOUS INFECTIONS

(Continued from Text Page 143)

most striking manner in the group of patients over 60 years of age with bacteremia, in which the fatality rate is usually very high regardless of the treatment employed.

The lowest fatality rates following sulfapyridin alone are found in individuals under 40 years of age without bacteremia.

It would appear from the information existing at present that the following tentative rules may be adopted:

1. All patients with pneumonia should have: (a) sputum culture and typing, (b) blood culture taken before any treatment is started, (c) total leukocyte count.
2. All patients with pneumococcal infection should receive sulfapyridin as soon as the diagnosis is made, unless they have leukopenia or signs of liver damage.
3. All patients with bacteremia should receive specific serum as well as sulfapyridin, regardless of the age of the patient, unless there is marked clinical improvement following sulfapyridin by the time the results of the blood culture become available.
4. All patients over 40 years of age, in whom the common types of pneumonia are found in the sputum, should receive both specific serum and sulfapyridin.
5. The best results may be expected from the use of sulfapyridin alone in young individuals, i. e., infants, children, and adults under the age of 40 years without bacteremia. If one fails to obtain a satisfactory clinical result within twenty-four to thirty-six hours, then specific serum treatment should be used.
6. All patients, then, should receive specific serum as well as sulfapyridin if they are over 40 years of age, and have bacteremia or involvement of more than one lobe; also, if treatment is started after the third day of illness, or if the patient is pregnant or in the first week of the puerperium.

### SIDE-EFFECTS OF SULFANILAMIDE AND SULFAPYRIDIN

In conclusion, I want to say something about the dangers of using these drugs indiscriminately. The side-effects of these drugs are numerous and some of them are of a serious



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nature. If the use of these drugs is confined to cases of infections in which they have a definitely proved value, then the total number of cases with serious side-effects will be diminished.

The most serious side-reactions are the neutropenia and hemolytic anemia. Most of these toxic manifestations of the drug are familiar to all of you so that the details of them need not be repeated here. I have, however, summarized their main features in Table 5.

### SUMMARY

The value of sulfanilamide in the treatment of streptococci, gonococci, meningococci, pneumococci, and urinary tract infections has been outlined and discussed.

The present status of sulfapyridin in the treatment of pneumococci pneumonia has been reviewed, and the various toxic and side-effects stressed.

Thorndike Memorial Laboratory,  
Boston City Hospital.

TABLE 5.—*Toxic Manifestations*

Clinical Features	Time of Appearance	Treatment	Results
Cyanosis	First or second twenty-four hours	Methylene blue, gr. i, t. i. d. Stop drug if there is anorexia or vomiting	Recovery is prompt following methylene blue or discontinuance of drug
Nausea Vomiting Giddiness Weakness	First twenty-four hours or later	None; it is usually not severe enough to discontinue the drug	
Acidosis	First twenty-four to forty-eight hours	Sodium bicarbonate daily	Recovery
Convulsions Central nervous system intoxication	Following intravenous injection of drug	The drug should not be used intravenously	Death
Anemia, acute hemolytic	Three to seven days	Stop drug Force fluids Blood transfusions	Recovery Recurrence of anemia is common if drug is resumed
Slowly progressive anemia	Seven to twenty-one days	Stop drug Force fluids Blood transfusions Iron	Recovery
Agranulocytosis	Seven to fourteen days or later	Stop drug Pentnucleotid Blood transfusions	Death in most cases within one to five days after onset
Fever	Seven to nine days; usually continues two to six days; varies from 101° to 106°; often associated with skin eruption	Discontinue drug Force fluids	Complete recovery May recur when drug is started again
Skin rash, pleomorphic	Seven to nine days; usually accompanied by fever	Discontinue drug Force fluids	Complete recovery
Jaundice	Associated with hemolytic anemia, exfoliative dermatitis Associated with liver damage	Discontinue drug Force fluids High carbohydrate intake	Recovery or death
Splenomegaly	Associated with jaundice or liver damage or acute or chronic anemia		Disappears in three to six weeks
Renal insufficiency	Associated with hepatic insufficiency	Stop drug Carbohydrate diet Maintain fluid balance	Recovery or death
Hemoglobinuria	Associated with acute hemolytic anemia	Same as treatment for anemia	Recovery
Optic neuritis	Rare	Discontinue drug	Recovery
Peripheral neuritis	Rare	Discontinue drug	Recovery



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**Rare Diabetic Gangrene of Cheek.**—Reporting two deaths from diabetic gangrene of the cheek, Joseph Millett, M. D., Hempstead, N. Y., points out in *The Journal of the American Medical Association* that only three other cases involving the cheek have been described in medical literature and all have proved fatal.

Although patients have recovered from diabetic gangrene of other parts of the face, Doctor Millett says, when the cheek has been involved the infection has always been fatal because it spreads to the general circulation.

"Patients with lesions which involved parts of the nose, the hard palate, the eyelids, the skin of the nose and ears, and the lip have recovered," the author states.

Describing the infection, Doctor Millett says that diabetic gangrene of the face does not even remotely resemble the carbuncle seen in skin infections in diabetes. The disease typically begins with painful red, swollen, spreading lesions, such as occur in erysipelas, which suddenly change to a dusky purple, with or without the development of blisters. There is a subsequent breakdown of tissue with the discharge of pus.

Unlike diabetic gangrene of the extremities, which usually affects the aged, the disease can occur at any time of life when only the face is involved.

Treatment in these cases is both general and local. General treatment consists of combating the diabetes and its complications. Blood transfusions and other measures must be instituted. The local treatment, except when the lesion involves the cheek, is to promote drainage and remove slough.

The human body can do great physical feats with no apparent harmful effects, provided the physical activity is not maintained over too long a duration of time or is not too frequent.—*Hygeia*.

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**M**UCH of the relationship of vitamin deficiency to deficiency diseases has been pioneered with the Albino rat. In maintaining vitamin B complex potent products, feeding in a ration devoid of and not borrowing any missing vitamin B factors has, throughout with us, been found the most dependable of all the tests. The Sherman-Chase technique is our preference for assaying the single B<sub>1</sub> factor, but the International test for B<sub>1</sub> where required is employed.

At recent medical exhibits lack of confidence among physicians in the rat test has been sensed. Obviously, one reason is that a single factor of the B vitamin group, held forth to have stated units of the

antineuritic or the growth factor, may not show these units and results unless the other factors with which the units were gotten are at hand for the physician.

Physicians want clinical data with human subjects. Vegex can supply it.

The workers find Vegex of uniform potency in the B vitamin complex; in the extrinsic factor (anemia). Groen and Snapper also mention the intrinsic factor. The iron content, 0.05%—partly from the grain mash and partly reinforced with ferrous malate, with the copper complement of 0.00245%—the copper coming from the yeast and not added—undoubtedly have significance.

## VEGEX IN ANEMIAS

Conservatism must be the rule in projecting products for use in human disease. The recovery and life of the patient, the professional reputation of the physician are at stake. The aid shown in the anemias has really lagged behind medical reports in presenting Vegex to the physicians. It is as it should be. With the

use in macrocytic anemia reported by Sturgis, inquiries from physicians are renewed.

Groen and Snapper, in an article in the American Journal of the Medical Sciences, May 1937, entitled "Dietary Deficiency as a Cause of Macrocytic Anemia" reports a case as follows:

"After a control period on a meat-free diet, during which the blood findings did not change, the child was given a mixed diet containing plenty of meat, fruit, vegetables, and one liter of milk daily (Fig. 6). The number of reticulocytes rose 14%, hemoglobin and erythrocytes to 39% and 1,500,000 per c.mm., respectively. On further addition of three teaspoonfuls of 'Vegex' (a preparation rich in B vitamins) to this diet a second reticulocyte response was obtained: the reticulocyte count rising this time to 18.4%. Hemoglobin and erythrocytes increased rapidly; April 5, 2 months after her admission, the hemoglobin was 80%, the erythrocytes

4,000,000 per c.mm.; the Price-Jones curve had returned to normal and the excess of urobilin had disappeared from the urine."

"A second gastric analysis now showed a completely normal curve. One and one-half hour after the test meal the acid values were 36 free and 48 combined hydrochloric acid. There was an abundant flow of gastric juice from the tube (Fig. 7)."

"After her discharge the patient was kept on a mixed diet. Her general and hematologic condition remained excellent as verified at a recent examination. Neither during the treatment nor after her discharge did she receive any liver or iron."

Some fifty-four medical reports of independent research show the value of Vegex in the anemias. Included are the American workers Strauss and Castle, Rhoads, Lawson and Payne, Sturgis, West, in a summary, finds that the extrinsic factor in Vegex had been established. This factor was postulated and demonstrated by Strauss and Castle.

In pernicious anemia, Vaughan in "The Anemias" summarizes that certain patients respond to "large doses." Wilkinson, Klein, Ungley, Wills state that Vegex is of distinct value in maintenance cases and definite value as an aid in the liver extract and other treatment.

With Vegex, liver diets are more regu-

larly sustained. Ungley, in the Quart. Journ. Med., July, 1933, page 381, says "in addition to the effect of Vegex-Marmite on blood regeneration and upon symptoms referable to anemia, there occurred an increase in the sense of well-being, and a marked increase in appetite."

The larger intake of Vegex which recent workers emphasize, can be had in hot or cold water. It is tasty in milk, soups and with butter on bread or toast. In anemia research Vegex has been used in the amounts of from 20 to 50 grams daily.

Vitamin work with the rat demonstrates the need for all of the known vitamin factors, with the rest of known balanced nutrition, including a mineral balance.



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DAYS.

Slight bites on neck or shoulders.  
Severe lacerated bites.  
Multiple bites.  
Bites on parts unprotected by clothing.

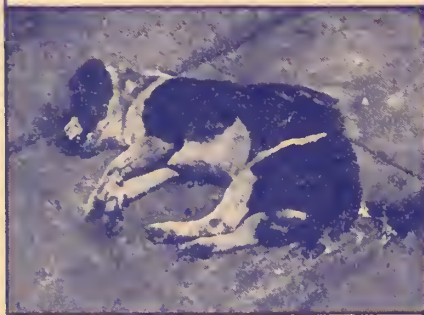
TWO DOSES EACH  
DAY FOR FIRST  
SEVEN DAYS AND  
ONE DOSE EACH  
DAY FOR THE  
NEXT SEVEN DAYS.

Head bites.  
Severe bites on neck or shoulders.  
Severe or multiple bites of hands.

TWO DOSES EACH  
DAY FOR 14  
DAYS.



1 The biting animal should be held under observation, not killed. Death will ensue within 10 days if suffering from rabies.



2 If the disease is allowed to develop fully, chances for accurate diagnosis are greatly improved. Sever the head and ship to your state hygienic laboratory, preserved with dry ice.



3 The wound should be washed thoroughly—deep wounds opened up—and cauterized with *fuming* nitric acid (if necessary, administered under light anaesthetic).



4 Commence treatment at once according to the schedule indicated. Treatment started after the laboratory diagnosis proves positive may be too late.



5 All injections should be given subcutaneously. Many clinicians prefer to make the injections in such areas as the abdominal wall, where the tissues are loose.



6 If the diagnosis proves negative few doses need be wasted. If positive, proper treatment instituted immediately may mean the difference between death and a favorable outcome.

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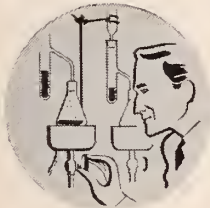
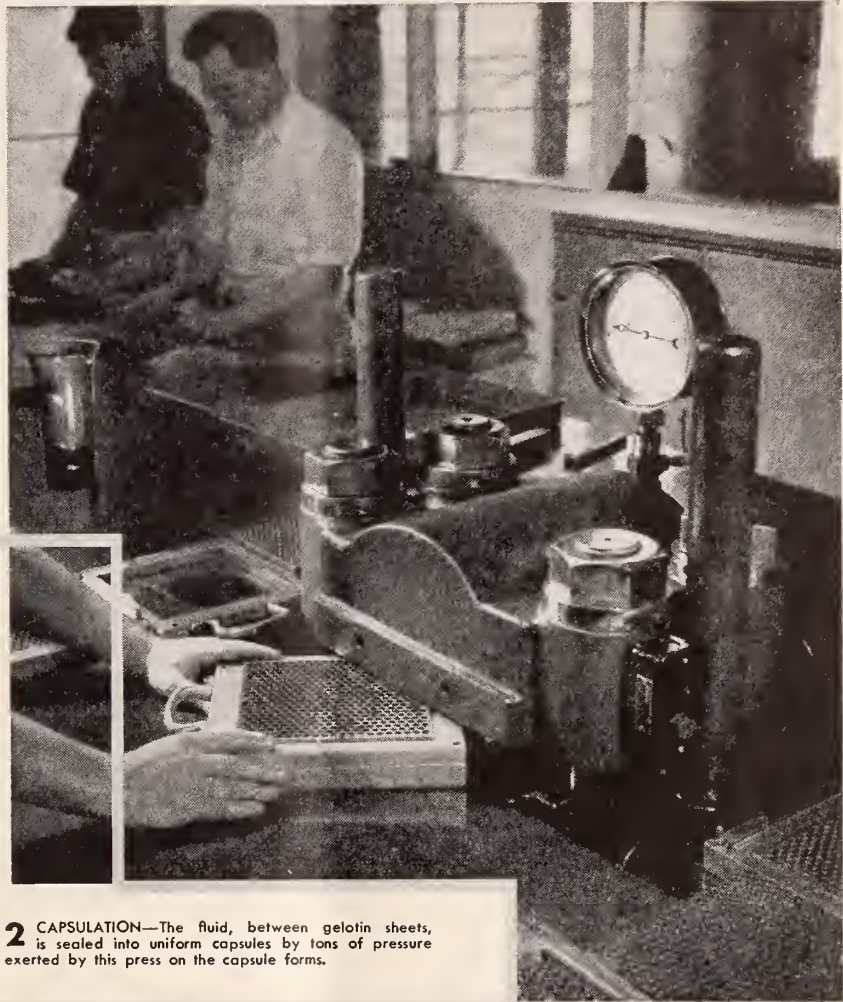
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President—Charles A. Dukes, 601 Wakefield Building, 426 Seventeenth Street, Oakland.	Vice-Chairman—Charles A. Dukes, 601 Wakefield Building, 426 Seventeenth Street, Oakland.	Secretary-Treasurer—George H. Kress, 450 Sutter Street, Room 2004, San Francisco. Telephone DOuglas 0062.
President-Elect—Harry H. Wilson, 1919 Wilshire Boulevard, Los Angeles.	Chairman of Executive Committee—Philip K. Gilman, 2000 Van Ness Avenue, San Francisco.	Editor—George H. Kress, 450 Sutter Street, Room 2004, San Francisco.
Speaker of House of Delegates—Lowell S. Goin, 414 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.	Chairman of the Committee on Public Relations—George G. Reinle, 532 Fifteenth Street, Oakland.	General Counsel—Hartley F. Peart, Room 1800, 111 Sutter Street, San Francisco.
Vice-Speaker of House of Delegates—Dewey R. Powell, 501 Medico-Dental Building, 242 North Sutter Street, Stockton.	Past-President—William W. Roblee, 202 Mission Inn Rotunda, Riverside.	Associate General Counsel—Hubert T. Morrow, Van Nuys Building, 210 West Seventh Street, Los Angeles.
Chairman of Council—Karl L. Schaupp, 490 Post Street, San Francisco.		

## Councilors

(In addition to the elected district and at-large Councilors, the Council has as ex officio members, the general officers and the Chairman of the Committee on Public Relations. Chairman of Council, Karl L. Schaupp; Secretary, George H. Kress.)

District Councilors		
First District—Imperial, Orange, Riverside, San Bernardino and San Diego Counties, Calvert L. Emmons (1941), 206 Emmons Building, Ontario.	Fifth District—Monterey, San Benito, San Mateo, Santa Clara and Santa Cruz Counties, C. Kelly Canelo (1942), 505 Medico-Dental Building, San Jose.	lano, Sonoma and Trinity Counties, Henry S. Rogers (1940), Petaluma.
Second District—Los Angeles, Inyo and Mono Counties, George D. Maner (1942), 657 South Westlake Avenue, Los Angeles.	Sixth District—San Francisco County, Karl L. Schaupp (1940), 530 Medico-Dental Building, 490 Post Street, San Francisco.	C. O. Tanner (1942), 3255 Fourth Street, San Diego.
Third District—Kern, San Luis Obispo, Santa Barbara and Ventura Counties, Louis A. Packard (1940), 563 Haherfelde Building, Bakersfield.	Seventh District—Alameda and Contra Costa Counties, Oliver D. Hamlin (1941), 389 Thirtieth Street, Oakland.	William H. Kiger (1940), 911 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.
Fourth District—Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare and Tuolumne Counties, Axel E. Anderson (1941), Medical Group Building, 1759 Fulton Street, Fresno.	Eighth District—Alpine, Amador, Butte, Colusa, Eldorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, Yolo and Yuba Counties, Frank A. MacDonald (1942), 822 Medico-Dental Building, 1127 Eleventh Street, Sacramento.	Philip K. Gilman (1941), 2000 Van Ness Avenue, San Francisco.
	Ninth District—Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Siskiyou, So-	E. Earl Moody (1941), 829 South Alvarado Street, Los Angeles.
		Elbridge J. Best (1942), 384 Post Street, San Francisco.
		Frederick N. Scatena (1940), Medico-Dental Building, 1127 Eleventh Street, Sacramento.

## Councilors-at-Large

## Standing Committees

Executive Committee		Committee on Publications	
The President, the President-elect, the Speaker of the House of Delegates, the Chairman of the Council, the Chairman of the Auditing Committee, the Chairman of the Committee on Public Relations, the Past President, the Secretary-Treasurer, and the Editor. (Philip K. Gilman, chairman; George H. Kress, secretary.)		Ralph B. Eusden (Chairman).....	Long Beach 1940
Auditing Committee		Ruggles A. Cushman.....	Talmage 1941
Philip K. Gilman (Chairman).....	San Francisco 1940	Francis E. Toomey.....	San Diego 1942
O. D. Hamlin.....	Oakland 1940	Secretary ex officio	
Elbridge J. Best.....	San Francisco 1940	Editor ex officio	
Members of the Auditing Committee are appointed each year by the Chairman of the Council.		Committee on Public Policy and Legislation	
Committee on Associated Societies and Technical Groups		E. T. Remmen.....	Glendale 1940
John V. Barrow (Chairman).....	Los Angeles 1940	Junius B. Harris (Chairman).....	Sacramento 1941
Edwin L. Bruck.....	San Francisco 1941	T. Henshaw Kelly.....	San Francisco 1942
Willard H. Newman.....	San Diego 1942	President ex officio	
Committee on Health and Public Instruction		President-Elect ex officio	
Benjamin W. Black.....	Oakland 1940	Committee on Scientific Work	
Roy E. Thomas (Chairman).....	Los Angeles 1941	Lemuel P. Adams.....	Oakland 1940
William Dock.....	San Francisco 1942	J. Homer Woolsey.....	Woodland 1941
Committee on History and Obituaries		Howard F. West.....	Los Angeles 1942
A. Elmer Belt.....	Los Angeles 1940	Russell V. Lee, Secretary of Section on General Medicine, ex officio	
Frank R. Makinson (Chairman).....	Oakland 1941	Frederick S. Foote, Secretary of Section on General Surgery, ex officio	
J. Marion Read.....	San Francisco 1942	George H. Kress, Secretary of California Medical Association, (Chairman) ex officio	
Secretary ex officio		Committee on Public Relations	
Editor ex officio		The Committee on Public Relations consists of the chairmen of the following standing committees and of certain general officers of the Association, all serving ex officio. The chairman of the committee is George G. Reinle, the secretary is George H. Kress. The director of the Department of Public Relations is George H. Kress. The chairman of the Committee on Public Relations is ex officio a member of the Council.	
Committee on Hospitals, Dispensaries and Clinics		Roy E. Thomas.....	Chair., Com. on Health and Public Instruction
Karl L. Schaupp.....	San Francisco 1940	J. Norman O'Neill.....	Chair., Com. on Hospitals, Dispensaries, Clinics
George I. Dawson.....	Napa 1941	Donald Cass.....	Chair., Com. on Industrial Practice
J. Norman O'Neill (Chairman).....	Los Angeles 1942	George G. Reinle.....	Chair., Com. on Medical Defense
Committee on Industrial Practice		George D. Maner.....	Chair., Com. on Membership and Organization
Harry E. Zaiser.....	Orange 1940	John H. Graves.....	Chair., Com. on Medical Economics
Morton R. Gibbons.....	San Francisco 1941	Junius B. Harris.....	Chair., Com. on Public Policy and Legislation
Donald Cass (Chairman).....	Los Angeles 1942	Alson R. Kilgore.....	Chair., Cancer Commission
Committee on Medical Defense		Dwight L. Wilbur.....	Chair., Com. on Postgraduate Activities
John P. Nuttall.....	Santa Monica 1940	Charles A. Dukes.....	President of California Medical Association
George G. Reinle (Chairman).....	Oakland 1941	Harry H. Wilson.....	President-elect
William J. Van Den Berg.....	Sacramento 1942	George H. Kress.....	Secretary-Treasurer
Committee on Medical Economics		Communications for the Public Relations Department should be addressed to the Director, George H. Kress, M. D., Room 2004, 450 Sutter Street, San Francisco.	
Edward M. Palette, Sr.....	Los Angeles 1940	Cancer Commission	
John H. Graves (Chairman).....	San Francisco 1941	Charles A. Dukes.....	Oakland 1940
L. W. Hines.....	Santa Rosa 1942	Lyell C. Kinney (Vice-Chairman).....	San Diego 1940
Committee on Medical Education and Medical Institutions		Otto H. Pfueger (Secretary).....	San Francisco 1940
John B. Doyle.....	Los Angeles 1940	Orville N. Meland (Sec. for Southern Section).....	Los Angeles 1941
B. O. Raulston.....	Los Angeles 1941	A. Herman Zeiler.....	Los Angeles 1941
L. R. Chandler (Chairman).....	San Francisco 1942	Gertrude Moore.....	Oakland 1941
Committee on Membership and Organization		Clarence J. Berne.....	Los Angeles 1942
G. Dan Delprat.....	San Francisco 1940	Alson R. Kilgore (Chairman).....	San Francisco 1942
George D. Maner (Chairman).....	Los Angeles 1941	Henry J. Ullmann.....	Santa Barbara 1942
Dewey R. Powell.....	Stockton 1942	Communications for the Cancer Commission should be addressed to the Secretary, Otto H. Pfueger, M. D., Room 2004, 450 Sutter Street, San Francisco.	
Committee on Postgraduate Activities			
Dwight L. Wilbur (Chairman).....	San Francisco 1940		
F. E. Clough.....	San Bernardino 1941		
H. E. Henderson.....	Santa Barbara 1942		
Secretary ex officio			

(Roster lists of officers of scientific sections, component county societies, Woman's Auxiliary, A. M. A. delegates, special committees, etc., are continued on advertising pages 4 and 6.)

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No enterprise in the range of human experience can rank with learning. By it alone man rises above dumb creatures. If, therefore, we have received nothing else so good as the mind, what should be more worth cultivating? No quest of gold or worldly power has in the long run ever brought like gratification. No other adventure is to be compared with it. Through it civilization and all man's higher achievements have been won.—Leon J. Richardson.

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# ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to promptly notify "California and Western Medicine" when changes are indicated in their roster information.)

**Alameda County Medical Association**  
2404 Broadway, Oakland  
President, Frank H. Bowles, 426 Seventeenth Street, Oakland.  
Secretary, Gertrude Moore, 2404 Broadway, Oakland.  
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

**Butte County Medical Society**  
President, E. L. Meyers, Fourth Street and Broadway, Chico.  
Secretary, J. O. Chiapella, 131 Broadway, Chico.  
Meeting, *Second Thursday.*

**Contra Costa County Medical Society**  
President, Kaho Daily, 314 Tenth Street, Richmond.  
Secretary, Clifford E. Dietderich, 1306 Pomona Avenue, Crockett.  
Meeting, *Second Tuesday, 8 p. m.*

**Fresno County Medical Society**  
President, Roland W. Dahlgren, 1006 Mattei Building, Fresno.  
Secretary, Lester R. Nielson, 1006 Mattei Bldg., Fresno.  
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

**Humboldt County Medical Society**  
President, Samuel P. Burre, 507 F Street, Eureka.  
Secretary, Joseph S. Woolford, 350 E Street, Eureka.  
Meeting, *First Thursday.*

**Imperial County Medical Society**  
President, Henry B. Graeser, 115 E. Fifth Street, Holtville.  
Secretary, William A. Clarke, Holtville.  
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

**Inyo-Mono County Medical Society**  
President, Lloyd S. Bambauer, 705 Home Street, Bishop.  
Secretary, Selda E. Anthony, 303 No. Edwards, Independence.  
Meeting, *Fourth Wednesday, Methodist Church, Bishop, except December, January, February.*

**Kern County Medical Society**  
President, C. I. Mead, Haberfelde Building, Bakersfield.  
Secretary, C. S. Compton, 428 C Street, Bakersfield.  
Meeting, *Third Thursday, 8:00 p. m.*

**Kings County Medical Society**  
President, P. K. Edmunds, Corcoran.  
Secretary, William A. Johnstone, Hanford.  
Meeting, *Second Monday, 8 p. m., Legion Hall, Hanford.*

**Lassen-Plumas-Modoc County Medical Society**  
President, C. I. Burnett, Susanville.  
Secretary, Fred J. Davis, Jr., Westwood.  
Meeting, *On Call.*

**Los Angeles County Medical Association**  
1925 Wilshire Boulevard, Los Angeles  
President, William H. Daniel, 1930 Wilshire Boulevard, Los Angeles.  
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.  
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

**Marin County Medical Society**  
President, Harry N. Hensler, Home Market Building, San Anselmo.  
Secretary, Carl W. Clark, 510 B Street, San Rafael.  
Meeting, *Fourth Thursday, 7:00 p. m., Marin Golf and Country Club.*

**Mendocino-Lake County Medical Society**  
President, Robert B. Smalley, Willits.  
Secretary, Dallas Wagner, Fort Bragg.  
Meeting, *On Call.*

**Merced County Medical Society**  
President, E. M. Soderstrom, Merced.  
Secretary, Fred O. Lien, Shaffer Building, Merced.  
Meeting, *Third Thursday, Hotel Tioga, Merced.*

**Monterey County Medical Society**  
President, Walter P. Farr, 308 Main Street, Salinas.  
Secretary, Herbert Archibald, Salinas National Bank Building, Salinas.  
Meeting, *First Thursday.*

**Napa County Medical Society**  
President, Alexander H. McLeish, Veterans Home Hospital, Yountville.  
Secretary, M. M. Booth, Bruck Building, St. Helena.  
Meeting, *First Wednesday.*

**Orange County Medical Society**  
President, M. W. Hollingsworth, 1806 No. Main Street, Santa Ana.  
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.  
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital Orange.*

**Placer County Medical Society**  
President, William M. Miller, Auburn.  
Secretary, Robert A. Peers, Colfax.  
Meeting, *At Call of President.*

**Riverside County Medical Society**  
President, N. K. Bear, 3655 Fourteenth Street, Riverside.  
Secretary, Thomas A. Card, 3616 Main Street, Riverside.  
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

**Sacramento Society for Medical Improvement**  
President, Manuel Azevedo, 1027 Tenth Street, Sacramento.  
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.  
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

**San Benito County Medical Society**  
President, J. M. O'Donnell, Hollister.  
Secretary, L. E. Smith, Hollister.  
Meeting, *At Call of President.*

**San Bernardino County Medical Society**  
President, Delbert B. Williams, 1151 D Street, San Bernardino.  
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.  
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

**San Diego County Medical Society**  
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego  
President, Hall G. Holder, 1109 Medico-Dental Building, San Diego.  
Secretary, C. V. Bernardini, Medico-Dental Building, 233 A Street, San Diego.  
Meeting, *Second Tuesday, El Cortez Hotel.*

**San Francisco County Medical Society**  
2180 Washington Street, San Francisco  
President, Edwin L. Bruck, 384 Post Street, San Francisco.  
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.  
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

**San Joaquin County Medical Society**  
President, N. P. Johnson, Medico-Dental Building, Stockton.  
Secretary, George H. Rohrhacher, Medico-Dental Building, Stockton.  
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

**San Luis Obispo County Medical Society**  
President, J. B. V. Butler, 722 Marsh Street, San Luis Obispo.  
Secretary, E. M. Bingham, County Health Department, San Luis Obispo.  
Meeting, *Third Saturday, 6:30 p. m., Gold Dragon Cafe, San Luis Obispo.*

(Roster lists continued on advertising page 6)

**San Mateo County Medical Society**  
President, N. D. Morrison, 205 Third Avenue, San Mateo.  
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.  
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

**Santa Barbara County Medical Society**  
President, W. H. Johnston, 1515 State Street, Santa Barbara.  
Secretary, D. H. McNamara, 317 W. Pueblo Street, Santa Barbara.  
Meeting, *Second Monday, Cottage Hospital.*

**Santa Clara County Medical Society**  
President, Cletus S. Sullivan, Bank of America Building, San Jose.  
Secretary, Leslie B. Magoon, 652 East Santa Clara Street, San Jose.  
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

**Santa Cruz County Medical Society**  
President, John T. Harrington, 10 Cooper Street, Santa Cruz.  
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.  
Meeting, *First Monday, 7:30 p. m., Club Rito del Mar, Aptos.*

**Shasta County Medical Society**  
President, B. F. Saylor, Redding.  
Secretary, Morton J. Murphy, 1542 Market Street, Redding.  
Meeting, *Second Monday.*

**Siskiyou County Medical Society**  
President, J. B. McGuire, Mt. Shasta.  
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.  
Meeting, *Sunday on call.*

**Solano County Medical Society**  
President, Ream S. Leachman, 727 Sonoma Street, Vallejo.  
Secretary, John W. Green, Box 539, Vallejo.  
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

**Sonoma County Medical Society**  
President, D. C. Oakleaf, 301A West Street, Healdsburg.  
Secretary, T. E. Alhers, 600 B Street, Santa Rosa.  
Meeting, *Second Thursday.*

**Stanislaus County Medical Society**  
President, John A. Cooper, 1024 J Street, Modesto.  
Secretary, Hoyt R. Gant, 403 Beaty Building, Modesto.  
Meeting, *Second Friday, 7:30 p. m., Hotel Hughson.*

**Tehama County Medical Society**  
President, O. T. Wood, Red Bluff.  
Secretary, R. G. Frey, Red Bluff.  
Meeting, *At Call of President.*

**Tulare County Medical Society**  
President, Newton Miller, 231 No. Main Street, Porterville.  
Secretary, Ray Cronemiller, Exeter.  
Meeting, *Sunday Evening once a month.*

**Ventura County Medical Society**  
President, W. F. Mosher, 34 No. Ash Street, Ventura.  
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.  
Meeting, *Second Tuesday, Ventura County Country Club.*

**Yolo-Colusa-Glenn County Medical Society**  
President, H. G. Potter, Winters.  
Secretary, W. J. Blevins, Jr., Woodland.  
Meeting, *First Tuesday.*

**Yuba-Sutter County Medical Society**  
President, P. E. Thunen, I. O. O. F. Building, Marysville.  
Secretary, Leon M. Swift, I. O. O. F. Building, Marysville.  
Meeting, *First Tuesday.*

# PRENATAL SUPPORTS

Of the so-called minor complaints of pregnancy, a contributor to the medical literature\* makes the following statement concerning backache: "Backache seemed to be due to several causes. Strain of the lumbar muscles and the vertebral ligaments, due to a change in the center of gravity was often responsible; fallen arches aggravated the complaint. It was relieved by rest in bed. A maternity corset with moderately rigid stays in the back was of benefit . . . Sacro-iliac relaxation as evidenced by pain over the joint was usually unilateral and was referred along the sciatic nerve. Usually a maternity corset would relieve it. This corset should have a strap or other device that will pull it snug over the sacro-iliac region."



*The support shown is designed for all types of build: thin, intermediate and stocky.*

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\*Charles J. Marshall, New York State Journal of Medicine, Vol. 34, Aug. 15, 1934.

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<b>Dermatology and Syphilology</b> Chairman, Nelson Paul Anderson, 2007 Wilshire Boulevard, Los Angeles. Vice-Chairman, Frederick G. Novy, Jr., 411 Thirtieth Street, Oakland. Secretary, Julius R. Scholtz, 1930 Wilshire Boulevard, Los Angeles.		
<b>Eye, Ear, Nose and Throat</b> Chairman, Dewey R. Powell, 242 No. Sutter Street, Stockton. Vice-Chairman, Warren D. Horner, Medico-Dental Bldg., 490 Post St., San Francisco. Secretary, Harry J. Wiley, 2701 Florence Street, Huntington Park.		
<b>General Medicine</b> Chairman, William H. Barrow, 1400 Medico-Dental Building, San Diego. Secretary, Russell V. Lee, 300 Hamilton Avenue, Palo Alto.		
<b>General Surgery</b> Chairman, Clarence E. Rees, 2001 Fourth Avenue, San Diego. Secretary, Frederick S. Foote, 490 Post Street, San Francisco. Assistant Secretary, Frank J. Breslin, 2007 Wilshire Boulevard, Los Angeles.		
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<b>Pediatrics</b> Chairman, Hartzell H. Ray, 23 Second Avenue, San Mateo. Secretary, W. W. Belford, 601 Medico-Dental Building, San Diego. Assistant Secretary, John J. Miller, 2000 Van Ness Avenue, San Francisco.		
<b>Radiology</b> Chairman, Robert R. Newell, Stanford University Hospital, San Francisco. Secretary, Carl D. Benninghoven, Mills Memorial Hospital, San Mateo. Assistant Secretary, Ray A. Carter, Los Angeles County General Hospital, Los Angeles.		
<b>Urology</b> Chairman, John A. Dougherty, 3115 Webster Street, Oakland. Secretary, Lyle G. Craig, 65 North Madison Avenue, Pasadena.		

## California Medical Association Delegates and Alternates to the American Medical Association

DELEGATES	ALTERNATES
George G. Reinle, Oakland.....	(1939-1940).....Frank R. Makinson, Oakland
Edward M. Pallette, Sr., Los Angeles.....	(1939-1940).....William H. Kiger, Los Angeles
Robert A. Peers, Colfax.....	(1939-1940).....F. F. Gundrum, Sacramento
William R. Molony, Sr., Los Angeles.....	(1939-1940).....John C. Ruddock, Los Angeles
Elbridge J. Best, San Francisco.....	(1940-1941).....Robert S. Stone, San Francisco
Lyell C. Kinney, San Diego.....	(1940-1941).....Bon. O. Adams, Riverside
Lowell S. Goin, Los Angeles.....	(1940-1941).....Roy E. Thomas, Los Angeles

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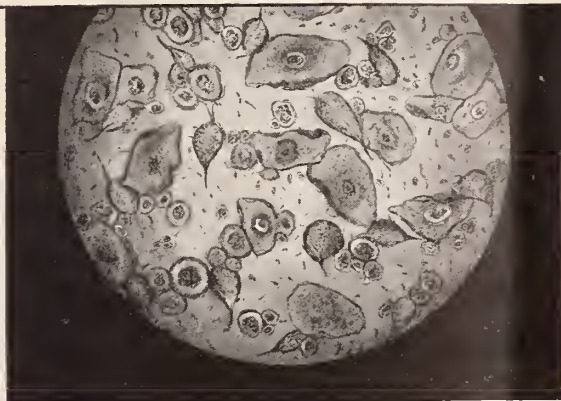
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## HOSPITALS AND SANATORIUMS

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<b>ALEXANDER SANITARIUM</b> Nervous and Mental Diseases Belmont, California	<b>COMPTON SANATORIUM AND LAS CAMPANAS HOSPITAL</b> Neuropsychiatric and General Compton, California	<b>POTTENGER SANATORIUM AND CLINIC</b> For the Treatment of Tuberculosis Monrovia, California
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"The free use of the drug," they state, "aside from the dangers of toxicity, frequently obscures the clinical picture and often gives rise to a latent course of the disease. Masked forms of mastoiditis and its complications are known to occur." For example, they describe a patient with acute mastoiditis who also had a masked clinical picture of meningitis (inflammation of the meninges). On a number of occasions, except for a moderate rise in temperature, the patient was symptom-free. Physical signs were absent and yet a spinal tap gave definite evidence of meningitis.

Summarizing their conclusions on the use of sulfanilamide for infections of the upper respiratory tract, the authors say, "For the present we use the drug only in otitic complications (those pertaining to the ear) such as in meningitis, sinus blood-clot and brain abscess. Because of a tendency to obscure the course of infection, our point of view at the present time is that sulfanilamide should be used cautiously, if at all, in acute infection of the middle ear. It should not be used in pus-discharging infection of the middle ear. Its use is contra-indicated during the course of a suspected mastoiditis before operation.

"To be more specific, we feel that, for the present at least, sulfanilamide should be given in infections of the middle ear before pus has been produced, in certain types of bacterial meningitis and in petrositis (infection of the hard part of the temple bone). In petrositis, sulfanilamide should not be administered during the period of observation because of the danger of masking the clinical course, thus interfering with the proper management of this condition. Should operation be indicated, it is advisable to give sulfanilamide promptly."

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Not only did such use of an oxygen tent make possible the retention of sulfapyridin in cases where vomiting had been a reaction from the drug, but it also made unnecessary the use of digitalis as a means of stimulation which, the authors say, they had previously used in all patients with pneumonia. The oxygen tent regimen definitely decreased the hospital stay.

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## BOOK REVIEWS

### BOOKS RECEIVED

**New and Nonofficial Remedies, 1939.** Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1939. Cloth. Pp. 617. Chicago: American Medical Association, 1939.

**Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association, 1938, with the Comments That Have Appeared in the Journal.** Cloth. Pp. 123. Chicago: American Medical Association, 1939.

**Medicolegal Phases of Occupational Diseases.** An Outline of Theory and Practice. By C. O. Sappington, A. B., M. D., Dr. P. H., Consultant, Occupational Diseases and Industrial Hygiene. Formerly Director of Industrial Health, National Safety Council; also special lecturer on Industrial Hygiene and Occupational Diseases, University of California, Stanford Medical School, University of Michigan, University of Illinois Medical School, and Rush Medical School. Cloth. Pp. 405. Chicago: Industrial Health Book Company, 1939.

**Diagnosis and Management of Diseases of the Biliary Tract.** By R. Franklin Carter, B. S., M. D., F. A. C. S., Associate Clinical Professor of Surgery, New York Postgraduate Medical School, Columbia University, New York City; and Director of Surgery, Gouverneur Hospital; Carl H. Greene, A. B., Ph. D., M. D., F. A. C. P., Associate Clinical Professor of Medicine, New York Postgraduate Medical School, Columbia University, New York City; Clinical Professor of Medicine, Long Island College of Medicine; Director of Medicine, Bushwick Hospital; Attending Physician, St. John's Hospital, Kings County Hospital, etc.; and John Russell Twiss, A. B., M. D., F. A. C. P., Assistant Clinical Professor of Medicine, New York Postgraduate Medical School, Columbia University; Assistant Physician, O. P. D., New York Hospital, New York City. Cloth. Pp. 432, illustrated with 84 engravings with 6 plates. Philadelphia: Lea & Febiger, 1939.

**Functional Disorders of the Foot.** Their Diagnosis and Treatment. By Frank D. Dickson, M. D., F. A. C. S., Orthopedic Surgeon, St. Luke's, Kansas City General and Wheatley Hospitals, Kansas City, Missouri, and Providence Hospital, Kansas City, Kansas; and Rex L. Diveley, A. B., M. D., F. A. C. S., Orthopedic Surgeon, St. Luke's, Kansas City General, Research and Wheatley Hospitals; Providence Hospital, Kansas City, Kansas. Cloth. Pp. 305, with 202 illustrations. Price, \$5.00. Philadelphia: J. B. Lippincott Company, 1939.

**The Art of Anesthesia.** By Paluel J. Flagg, M. D., Visiting Anesthetist to Manhattan Eye and Ear Hospital; Consulting Anesthetist to St. Vincent's Hospital, New York; Consulting Anesthetist to the Woman's Hospital, Sea View Hospital, Jamaica Hospital, Mount Vernon Hospital, Flushing Hospital, Mary Immaculate Hospital, and St. Mary's Hospital, Far Rockaway, New York; Nassau Hospital, Long Island; Director of Pneumatology, World's Fair, New York City, and Chairman of Committee on Asphyxia of the American Medical Association. Sixth Edition, Revised. Cloth. Pp. 491, with 161 illustrations. Philadelphia: J. B. Lippincott Company, 1939.

**Operative Orthopedics.** By Willis C. Campbell, M. D., Memphis, Tennessee. Cloth. Pp. 1154, with 845 illustrations, including 4 color plates. Price \$12.50. St. Louis: The C. V. Mosby Company, 1939.

**The Infant and Child in Health and Disease.** With Special Reference to Nursing Care. By John Zahorsky, A. B., M. D., F. A. C. P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine, and Pediatrician-in-Chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics, St. Louis, Missouri; and Elizabeth Noys, R. N.,

(Continued on Next Page)



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### BOOKS RECEIVED

(Continued from Preceding Page)

Supervisor and Instructor of Pediatrics, Children's Hospital, San Francisco, California. Second Edition. Cloth. Pp. 496, illustrated. Price, \$3.00. St. Louis: The C. V. Mosby Company, 1939.

**Cardiovascular Diseases.** Their Diagnosis and Treatment. By David Scherf, M. D., and Linn J. Boyd, M. D., F. A. C. P., Associate Professor of Clinical Medicine and Professor of Medicine, respectively, the New York Medical College, and Flower and Fifth Avenue Hospitals, New York. Cloth. Pp. 458. Price, \$6.25. St. Louis: The C. V. Mosby Company, 1939.

**The Rockefeller Foundation Annual Report, 1938.** Paper. Pp. 515. New York: The Rockefeller Foundation, 1939.

**Do You Want to Become a Doctor?** By Morris Fishbein, M. D., Editor, *Journal of the American Medical Association*. Cloth. Pp. 176. Price, \$1.50. New York: Frederick A. Stokes Company, 1939.

**Gregg Medical Dictation Series.** By Marie Zweegman Yates. Volume 1, General Medicine. Paper. Pp. 90. Price, \$1.00. Volume 2, Surgery. Paper. Pp. 88. Price, \$1.00. Volume 3, Pediatrics. Paper. Pp. 89. Price, \$1.00. New York: The Gregg Publishing Company, 1939.

**Tuberculosis and Social Conditions in England.** With Special Reference to Young Adults: A Statistical Study. By P. D'Arcy Hart, M. D., F. R. C. P., Member of the Scientific Staff, Medical Research Council; and G. Payling Wright, D. M., M. R. C. P., Sir William Dunn Professor of Pathology, Guy's Hospital Medical School, University of London. Foreword by the Marchioness of Titchfield, Chairman of Council of the National Association. Preface by Sir Arthur S. MacNalty, K. C. B., M. D., F. R. C. P., Chief Medical Officer of the Ministry of Health. Paper. Pp. 165. Price, 3s. London: National Association for the Prevention of Tuberculosis, 1939.

**Look and Listen.** The Television Handbook. By M. B. Sleeper. Describing 1939 Television Practice, for Service Men, Set-Builders and Students. Paper. Pp. 96. Price, \$1.00. New York: The Norman W. Henley Publishing Company, 1939.

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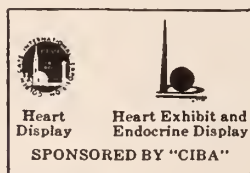
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#### BOOK REVIEWS

**Pathological Technique.** By Frank Burr Mallory, A. M., M. D., S. D., Consulting Pathologist to the Boston City Hospital, Boston, Mass. Cloth. Pp. 434, with 14 illustrations. Price, \$4.50 net. Philadelphia: W. B. Saunders Company, 1938.

This rewriting of a book, long a pillar of wisdom for laboratory workers and too long out of print, makes its appearance in response to numerous requests for a reference work which can serve as a fixed point in a rapidly changing field. The number of new tissue stains for the identification of specific components is impressive. The book, unlike its predecessors, does not attempt to include the technique of cultural bacteriology, but staining methods for bacteria are presented. Autopsy methods, which have changed little during the past quarter century, might well be made compulsory reading for those not otherwise trained who only occasionally attempt this procedure. The tables of organ weights, especially those for children, will be found particularly useful to the busy pathologist.—H. A. Ball, San Diego.

**New and Nonofficial Remedies, 1939**, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1939. Cloth. Price, postpaid, \$1.50. Pp. 617 plus lxvii. Chicago: American Medical Association, 1939.

Each year a revised list of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association as of January 1 is published in book form under the title of "New and Nonofficial Remedies." The book contains the descriptions of acceptable proprietary substances and their preparations, proprietary mixtures if they have originality or other important qualities, important nonproprietary nonofficial articles, simple pharmaceutical preparations, and other articles which require retention in the book.

A list of articles and brands accepted by the Council, but not described, is included in the book to cover simple preparations or mixtures of official articles (U. S. P. or N. F.) marketed under descriptive, nonproprietary names for

(Continued on Page 18)



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#### BIBLIOGRAPHY

GUTTMANN, E.—The Effect of Benzedrine on Depressive States—*J. Ment. Sci.*, 82:618, September, 1936.

MYERSON, A.—Effect of Benzedrine Sulfate on Mood and Fatigue in Normal and in Neurotic Persons—*Arch. Neurol. & Psychiat.*, 36:816, October, 1936.

DAVIDOFF, E.—A Clinical Study of the Effect of Benzedrine Therapy on Self-Absorbed Patients—*Psychiatric Quart.*, 10:652, October, 1936.

WILBUR, D. L.; MACLEAN, A. R. and ALLEN, E. V.—Clinical Observations on the Effect of Benzedrine Sulphate—*Proc. Staff Meet. Mayo Clin.*, 12:97, February 17, 1937.

NATHANSON, M. H.—The Central Action of Beta-aminopropylbenzene (Benzedrine)—*J. A. M. A.*, 108:528, February 13, 1937.

DAVIDOFF, E. and REIFENSTEIN, E. C., JR.—The Stimulating Action of Benzedrine Sulfate—*J. A. M. A.*, 108:1770, May 22, 1937.

GUTTMANN, E. and SARGANT, W.—Observations on Benzedrine—*Brit. Med. J.*, 1:1013, May 15, 1937.

WOOLLEY, L. F.—The Clinical Effects of Benzedrine Sulphate in Mental Patients with Retarded Activity—*Psychiatric Quart.*, 12:66, January, 1938.

ANDERSON, E. W.—Further Observations on Benzedrine—*Brit. Med. J.*, 2:60, July 9, 1938.

BRINTON, D.—Nervous Diseases—Benzedrine Sulfate—*The Practitioner*, 139:385, October, 1937.

REPORT OF THE COUNCIL ON PHARMACY AND CHEMISTRY—The Present Status of Benzedrine Sulfate—*J. A. M. A.*, 109:2064, December 18, 1937.

REPORT OF THE COUNCIL ON PHARMACY AND CHEMISTRY (Announcement of Acceptance)—*J. A. M. A.*, 111:27, July 2, 1938.

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## BOOK REVIEWS

(Continued from Page 16)

which only established claims are made. Diagnostic reagents which are not used in or on the human body, and protein diagnostic preparations are not included in "New and Nonofficial Remedies" unless the determination of the status of these products by the Council has been requested by the distributor. If such products are found to be marketed in accordance with the Council's rules, they may be included in the list of undescribed but acceptable articles.

A supplement to the annual volume of "New and Nonofficial Remedies" is published twice a year to bring up to date such current revisions and additions as have been necessary since its last publication. Every product included in the book is subject to the official rules of the Council. The comments to rules are changed occasionally by way of clarifying interpretation to insure fair consideration of all submitted preparations as new standards are recognized. Such constant and critical consideration of its contents provides the physician with a valuable reference

list of acceptable new preparations on which to base his selection for use in treatment according to the established current practices of the profession.

"New and Nonofficial Remedies" for 1939 omits many articles which appeared in the publication for 1938. A few of these have been omitted by action of the Council because they conflict with the rules that govern the recognition of articles or because their distributors did not present convincing evidence to demonstrate their continued eligibility. Among these are biliposol, serobacterins and suppositories salyrgan. A considerable number of others have been omitted as being off the market.

The 1939 "New and Nonofficial Remedies," of course, contains the revisions which appeared in the supplements for the 1938 edition, and continues the plan of grouping together articles having similar composition or action under a general discussion. These discussions have undergone considerable revision in the 1939 edition. Further revision of statements regarding the actions, uses, dosage, composition, purity, identity, strength or physical properties of many of the articles has also been necessary in some cases. Noteworthy revisions are anesthetics, local; bismuth compounds, organs of animals; vitamins and vitamin preparations, and liver and stomach preparations.

The indices of the new volume of "New and Nonofficial Remedies" are of the same order and plan as in previous editions. A general index lists accepted articles, including those not described. This is followed by an index to distributors in which appear all the Council-accepted articles listed under their respective manufacturers. Finally, a bibliographical index is added for listing propri-

etary and unofficial articles not included "New and Nonofficial Remedies." This includes references to the Council publications concerning each such article as has appeared in *The Journal of the American Medical Association*, reports of the Council on Pharmacy and Chemistry, Propaganda for Reform, Vols. 1 and 2, or reports of the American Medical Association Chemical Laboratory.

**Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1938.** Cloth. Price, \$1.00. Pp. 120. Chicago: American Medical Association, 1939.

This volume, as usual, contains noteworthy examples of the various kinds of reports made by the Council on Pharmacy and Chemistry: (1) preliminary reports; (2) supplemental reports on therapeutic or pharmacologic problems; (3) reports on the rejection of preparations offered for the Council's consideration.

Among the preliminary reports in this volume, that on sulfapyridin, which carries a special article by Dr. Perrin (Continued on Page 22)



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## BOOK REVIEWS

(Continued from Page 18)

H. Long, a Council member who has been much concerned with the work on this drug, is perhaps of greatest interest. After the Food and Drug Administration had released the drug for the use of physicians early in 1939, the Council accepted various brands for inclusion in "New and Non-official Remedies" and in connection with the published descriptions issued another status report (*Journal of the American Medical Association*, 112:1830, May 6, 1939) based on a questionnaire sent to men who had been prominent in the experimental use of the drug. This report, no doubt, will appear in the next volume of reprinted Council reports. Other preliminary reports are the following: allantoin, a preparation of glyoxyldiureid purposed to supersede the use of surgical maggots; and sulfapyridin, published shortly before the Council acceptance of this new chemotherapeutic drug.

Among the supplemental (or status) reports are those on colloidal sulfur in the treatment of chronic arthritis, showing that much confirmatory evidence is needed to establish the value of this therapy; on ergonovine, a careful study of the relation of this newly discovered principle to ergot therapy in general; and on picrotoxin in poisoning by the barbiturates, showing the promise and the present limitations of this antidotal therapy.

Among the reports of rejection the following are noteworthy: collodaurum, a "colloidal gold" preparation, promoted with unwarranted, exaggerated and misleading claims for its use in the treatment of cancer; Dermog-G, stated to be a mixture of spermaceti, white wax, oil of sweet almonds, sodium borate, precipitated sulphur and water, an unscientific and superfluous mixture marketed under a therapeutically suggestive name with exaggerated, unwarranted claims; Fru-T-Lax, a needlessly complex and unscientific mixture advertised to the public under a misleading and inadequately descriptive name with claims which are unwarranted; and Hyposols Sulisocol, claimed to be "sulphur colloid" in 2 cubic centimeters of "Autoisotonized Solution," exploited for use in arthritis with inadequate evidence of its therapeutic value. Other rejections are explained in the reports on map and myoston, nupercainal (Ciba), Pulvoid's sulfanilamide, and sodium bicarbonate (The Drug Products Company, Inc.), and quinolvin.

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**Clinical Gastroenterology.** By Horace Wendell Soper, M. D., F. A. C. P., St. Louis, Missouri. Cloth. Pp. 314, with 212 illustrations. Price, \$6. St. Louis: The C. V. Mosby Company, 1939.

A "Clinical Gastroenterology" is what Doctor Soper calls his book, and that is exactly what it is—one gastroenterologist's ideas and practice told in language reminiscent of clinical demonstration rather than the usual academic textbook. Here one will find no exhaustive discussion of theory, no summaries of the literature (although at the end a fairly extensive bibliography is given), and very little pathology. In short, in succinct chapters and language reflecting strongly Doctor Soper's own personality, his ideas are set forth on the treatment of common conditions in his specialty. To each chapter are appended well-chosen x-ray reproductions. The resultant manual of clinical roentgenology is itself well worth the price of the book.

However, Doctor Soper's book has the weaknesses, as well as the virtues of a highly individual clinical presentation. Scant attention is paid theories of etiology and pathology, and methods of treatment, which may differ from those favored by the author, but which, nevertheless, merit as serious consideration as do his own. In particular, Doctor Soper holds views on the danger and undesirability of milk as a food which are not generally agreed to by authorities in biochemistry, bacteriology, and nutrition. Furthermore, it seems to the reviewer that several of the later chapters might well have been omitted as having no real place in a work on gastroenterology, and being too brief to afford any adequate treatment of their topics. This comment applies especially to the essays on syphilis, allergy, sprue and pellagra, and intestinal protozoa. However, when this is said, there is left a work of convenient brevity which may be perused with profit by all general practitioners, surgeons, and internists.—Harold G. Torbert, San Diego.

**Outline of Roentgen Diagnosis.** An Orientation in the Basic Principles of Diagnosis by the Roentgen Method. By Leo G. Rigler, B. S., M. B., M. D., Professor of Radiology, Professor of Roentgenology, University of Minnesota. Minneapolis, Paper. Pp. 212. Price, \$3.00. Philadelphia and New York: J. B. Lippincott Company.

As the title implies, this book is an outline, but written in very readable form. The main diagnostic and differential points of each disease or condition are listed, together

(Continued on Page 24)

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- ☐ N. Y. State Jour. Med. 1935, 35-No. 11,590—"Irritating Properties of Cigarette Smoke as Influenced by Hygroscopic Agents."
- ☐ Laryngoscope, 1935, XLV, No. 2, 149-154—"Some Clinical Observations on the Influence of Certain Hygroscopic Agents in Cigarettes."
- ☐ Laryngoscope, 1937, XLVII, 58-60—"Further Clinical Observations on the Influence of Hygroscopic Agents in Cigarettes."

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## BOOK REVIEWS

(Continued from Page 22)

with complete discussion or amplification where necessary. The explanations, however, are as short and to the point as possible.

The first few pages are devoted to a brief discussion of the nature and general value of roentgen examination, together with a short examination as to the characteristics and factors influencing a film. Some of the common errors of diagnosis are also listed, followed by a résumé of the diseases to be found in each system, and a concise but complete definition of the terms to be used throughout the book.

The various systems are then dealt with individually and in detail. These comprise: Bones and Joints, Diseases of the Spine and Spinal Cord, the Skull and its Contents, Thorax, Digestive Tract, Gall Bladder, Abdomen, Urinary Tract, and Female Generative Organs, and there is a last section, entitled "Miscellaneous." Included in this portion are soft-tissue examinations of the neck and larynx, salivography, arteriography and veinography, and a résumé of unusual calcifications throughout the body, such as bursae, calcified glands, and cysts of various types. The outstanding chapters are those on the Bones and Joints, the Thorax with its respiratory and cardiovascular diseases, and the Digestive Tract.

The differential diagnosis of corresponding diseases, together with their specific differential characteristics, are listed during the discussion of these conditions. The general practitioner and the student will find of especial interest the short paragraphs preceding each special examination. The author enumerates the information which may be elicited by the x-ray study of the part; or, as it is titled: the "Value of—(each specific examination)."

There is a complete pictorial atlas at the back of the book, together with a number of teaching drawings and schematic diagrams. Numerical references are made throughout the preceding volume to the corresponding illustrations in the atlas, by which the pathology can be viewed pictorially.

The general practitioner and the specialist of roentgen diagnosis will find this book a very valuable adjunct, both for its teaching value and as a source of reference.—J. B. Eneboe, M. D., San Diego, California.

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## TWENTY-FIVE YEARS AGO

(Continued from Text Page 216)

have concentrated the work of undergraduate instruction of the State University at Berkeley and at San Francisco; the premedical work of collegiate grade, and the first two years of the medical course proper being given at Berkeley, and the clinical work of the last two years being carried on at San Francisco at the Affiliated Colleges. . . .

The dean of the undergraduate department of the Los Angeles Medical Department, Dr. W. Jarvis Barlow, having resigned, the Regents have elected Dr. George H. Kress dean of the new graduate school.

*War and Its Romance.*—We are all so stunned at the happening of the impossible, the being forced to think of the unthinkable, that it is difficult even to imagine things in their proper proportions. Hell has certainly grabbed all Europe for its very own. Psychologically, it is of sad enough interest to see how quickly peaceful people, going through life in the most friendly relations, suddenly become crazed with the lust for blood; for killing; for murder by wholesale. It is also of interest, and of profound significance, that millions of men can be moved about a large area, cared for, fed, guided, herded hither and yon, and not a word of their actual location, movements or doings reach the knowledge of the outside world except such fragments as the leaders of these millions permit to escape. It would have seemed quite impossible so thoroughly and completely to bottle up all the avenues of escape for news; but it was done and is being done. The control of the masses by the few seems to be absolute; but will it always last?

(Continued on Page 26)



# Here's One Reason

## Why RY-KRISP is so helpful as a natural corrective in cases of common constipation



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### TWENTY-FIVE YEARS AGO

(Continued from Page 24)

*From an Original Article on "The Treatment of Gastric and Duodenal Ulcer," by René Bine, M.D., and Emile Schmoll, M.D., San Francisco.*—Ever since pathologists began to insist upon the universal prevalence of tuberculosis, clinicians have tried to perfect their methods of diagnosis of this disease in order to recognize it in its incipency. This has necessarily resulted in an increase of clinically diagnosed cases, many of which are labeled "old," "health," or "latent"; others "active," "progressive," etc. Similar conditions apply to the disease now under discussion. It is less than one hundred years since pathologists began to clearly differentiate between ulcers and cancers of the gastroduodenal region, and ever since then anatomists have shown that active ulcers or cicatrices are

found in 3 to 5 per cent of all autopsies. With the advances of modern surgery and an increasing number of laparotomies, ulcers have been demonstrated and found to explain the symptoms in many otherwise obscure cases. This has stimulated physicians to more accurate observation and study of gastro-intestinal patients, so that we now find ulcers diagnosed much more often than they were even ten years ago. . . .

*From an Original Article on "Surgery of Peptic Ulcer," by L. Eloesser, M.D., San Francisco.*—What we have learned of the physiology and pathology of digestion in the last ten or fifteen years has overturned most of our old notions without giving us a stable foundation in their place. The next few years should clarify the subject. Facts and data enough are at hand; it remains to sift and study them.

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In the first place we have learned to diagnose ulcer better; it is especially the roentgen ray that has helped us here. We have learned to distinguish between the different kinds of ulcer, especially as to anatomical location, and we have learned that different kinds of ulcer and differently located ones demand different treatment. Our views, however, as to what kind of treatment is best adapted to each particular form are anything but settled. On the whole, I think that our diagnostic insight has outstripped our therapeutic ability. . . .

*From an Original Article on "The Dose of Salvarsan," by Douglass W. Montgomery, M.D., San Francisco.*—Because of the occasional occurrence of encephalitis hemorrhagica and other accidents, the dose of salvarsan is undergoing decided modifications. The dose recommended for general use when the drug was first introduced was 0.60

gram for males and 0.40 gram for females, equivalent in neosalvarsan to 0.90 gram for males and 0.60 gram for females. When these doses are carefully given, in almost every instance they are borne without any disagreeable symptoms whatever. There may be some vomiting, there may be some diarrhea, there may be some diuresis, but the patients usually arise from the couch, on which they have received their infusion, and experience no ill effects. Deaths do, however, result from the administration of salvarsan, and they are particularly distressful. When such an accident occurs quickly following the infusion of a drug into the blood, the physician cannot escape the feeling of responsibility, nor can he elude the censure of those that surround him. Both remorse and blame are especially sharp in those instances in which the medical man has strongly urged the acceptance of the treatment. As the

(Continued on Next Page)



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## TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

whole dose is administered intravenously and at one time, it is, therefore, irretrievable and, when once given, it goes on its way for good or for evil without any essential modification of its action being possible. . . .

*From an Original Article on "The Early Diagnosis of Cancer of the Rectum," by Alfred J. Zobel, M.D., San Francisco.*—Cancer of the rectum is rarely observed in its earliest developmental stage, as during that period it seldom manifests any sign of its presence. But after significant symptoms, strongly suggestive of its existence, make their appearance it is possible to discover it early through a careful rectal examination. Yet, oftentimes, the most indicative symptoms, such as supposedly would prompt even a poorly trained observer to suspect malignancy, are passed over with seemingly careless indifference. As a consequence a neoplasm, which if diagnosed earlier might have been excised, promising prolongation of life and even permanency of cure, becomes an inoperable mass, resulting in suffering and early death. Unfortunately, too many await for all the classical symptoms of rectal cancer—pain, hemorrhage, obstipation, and loss of weight—before they are impelled to make an examination of the terminal portion of the bowel. By that time the golden opportunity for surgical interference has passed. . . .

*From an Original Article on "Psychotherapy in Urology," by Victor G. Vecchi, M.D., San Francisco.*—Consciously or unconsciously, psychotherapy is being employed by every physician. Even a superficial study of the history of medicine will convince anyone that it has been used at all times

by the physicians of all nations. The methods are old; only the names are new. For the most part the methods have been rather crude, and whoever, prompted by his personal experience, tried to give some variation of psychotherapy great importance in his own practice was sure to be called a faker, an impostor. But some of the impostors and fakers were successful with many patients. The medical profession at large, however, sitting on its dignity, clad with periwig, doctor's hat and stick, or later under the atavistic influence of these signs of an exclusive rank, refuses to take notice. It is humiliating, but nevertheless true, that among the fakers a female prophet had to arise to compel the medical profession to start an investigation and to examine one of the most powerful weapons in the fight against disease and suffering. . . .

*From an Original Article on "Photography in Relation to the Medical Science," by H. D'Arcy Power, M.D., San Francisco.*—It is remarkable how in an age when everybody writes, and the most trivial subjects receive more than their share of attention, it still occurs that matters of great and practical importance are without an available literature. Such is the case in respect to the techniques of photography when applied to the needs of the physician and surgeon. Every medical publication throughout the world is more or less photographically illustrated, but we all are painfully aware how commonly these pictures fail to convey the author's conception. . . .

The harvesting of truth is a fairly safe operation, for if some falsehood be inadvertently harvested along with the grain we may hope that, having a less robust and hardy nature, it will before long be detected by its decaying odor.—Lodge.



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\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the —— Gift, the following described real property situate in the County of ——, State of California, and more particularly described as follows, to wit:

\* \* \*

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I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large as income as may be compatible with safety.

\* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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## BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 216)

exclusion from medical practice on any basis of competency or qualification for such practice. Lastly, the Federal Government has control of the admission of aliens, and the states should not, and probably as a matter of constitutional law cannot, deny such aliens a right to earn a livelihood in any proper pursuit." (Sacramento Bee, July 26, 1939.)

"Prescriptive treatments for baldness can only be given by a licensed doctor, Attorney-General Warren ruled yesterday in interpreting the Business and Professions Code for Dr. Charles B. Pinkham, Secretary-Treasurer of the California Board of Medical Examiners." (San Francisco Chronicle, August 9, 1939.)

"A fight over an appointment to the State Board of Chiropractic Examiners was taken to the Alameda County Superior Court today. Dr. Roy G. Labachotte, Redwood City chiropractor, and Attorney-General Earl Warren, acting in the name of the state, filed a *quo warranto* proceeding against Dr. Franklin Morris, Oakland chiropractor. The action, in effect, requires Doctor Morris to show by what right he holds a post on the State Board of Chiropractic Examiners. Doctor Labachotte set forth in the action that he was appointed to the Board last December 31 by Governor Frank F. Merriam and that he took office to fill a vacancy created by the expiration of the term of Raymond C. Foy. He declared that his appointment was for a three-year term, but that, despite this, he was replaced on April 5 by Doctor Morris, who was appointed by Governor Culbert L. Olson. The Attorney-General's office explained that the question involved con-

(Continued on Page 34)



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# CALIFORNIA AND WESTERN MEDICINE

OFFICIAL JOURNAL OF THE CALIFORNIA MEDICAL ASSOCIATION

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NO. 3

## California and Western Medicine

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EDITOR . . . . . GEORGE H. KRESS

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*Change of Address.*—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

*Responsibility for Statements and Conclusions in Original Articles.*—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

*Contributions—Exclusive Publication.*—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

*Contributions—Length of Articles; Extra Costs.*—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

*Leaflet Regarding Rules of Publication.*—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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## EDITORIALS†

### NEW CALIFORNIA LAWS: OF PUBLIC HEALTH AND MEDICAL INTEREST

**Legislative Sessions Are Synonymous with New Laws.**—Law-making activities of a session of the California Legislature are biennially reflected in the pages of the OFFICIAL JOURNAL of the California Medical Association, through informative comment on several hundred proposed laws relating to public health and medical practice. The number of such proposed statutes, instead of growing less, seems ever to be on the increase.

Much of the legislation here spoken of may be said to be decidedly inimical, rather than favorable, to public health and medical practice standards; yet even though having little real merit, the acts submitted, once they have been introduced at Sacramento, demand careful and constant attention lest, by hook or crook, they slip out from committee files, to secure places on the Assembly or Senate calendars. Even though a certain type of legislation is almost sure to be defeated in the upper or lower chambers, the discussion likely to take place concerning such measures may make good—because sensational—press stories. In this way, at times, through unfortunate publicity, much harm can be done to public health and medical practice interests.

\* \* \*

**Summary of Public Health and Medical Practice Legislation in This Issue.**—In the five to six months during which the Legislature is in session, only a few of the more pressing legislative proposals are singled out for special comment in CALIFORNIA AND WESTERN MEDICINE. Once, however, the Legislature has adjourned, and the last day for gubernatorial sanction or veto is a thing of the past, it is in order, and urgently proper that a brief survey be given in the OFFICIAL JOURNAL of the more important measures that may have demanded attention and action by the Committee on Public Policy and Legislation, the officers, the component county societies and their members.

Therefore, in the current issue of CALIFORNIA AND WESTERN MEDICINE a summary is printed, both for the purpose of record, and in the hope that readers will at least scan it. (See page 186.)

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.



A glance at the number and nature of the many proposed laws there enumerated should convince even those who are skeptical that the constituted authorities of the Association have abundant work cut out for them, once a California Legislature convenes for its biennial law-making. If space permitted, many an interesting story could be related concerning some of the measures—on what took place, for example, in committee meetings, behind the scenes, and on the Committee and Senate floors.

\* \* \*

**Comments on New Statutes with Penalizing Clauses.**—Because several of the laws that will become operative about September 19 have important implications in medical practice, some additional comment will now briefly be made:

*Prenatal and Premarital Laws.*

Chapter 127, California Acts of 1939, on Prenatal Examination, and Chapter 382, on Premarital Examination, are two laws, the complete text of which appeared on page 71 of CALIFORNIA AND WESTERN MEDICINE for July, 1939, with some editorial comment on page 6 of that number. Attention is especially called to the misdemeanor provisions for noncompliance with the law's provisions.

On page 139 of the August issue will also be found a question-and-answer résumé of the Premarital Law (Chapter 382); and it is suggested that all licensed physicians acquaint themselves with the interpretative comment concerning that new statute which goes into effect on September 19, 1939. From now on patients who contemplate matrimony will be consulting their physicians on these matters, and it may be embarrassing not to have the correct answers at hand. (In this issue, see items on pages 200-202 and 208-211.)

*Compensation Protection for All Employees Law.*

Assembly Bill 1521 lays down stringent provisions whereby employers must carry compensation insurance for all employees (casual employees and domestics working less than fifty-two hours weekly excluded), be they only one. Physicians, therefore, must carry compensation insurance coverage for all office employees and nurses. Violation of the new statute constitutes a misdemeanor. The text of the measure appears in this issue of CALIFORNIA AND WESTERN MEDICINE, on advertising page 45.

*Epilepsy Law*

A new law, operative on September 3, makes epilepsy a reportable disease. A brief item concerning this statute appears in this issue, on page 183.

*Narcotic Prescription Laws.*

In the April issue of CALIFORNIA AND WESTERN MEDICINE, on page 313, appeared a letter worthy of perusal, from Paul E. Madden, Chief, California Division of Narcotic Enforcement, in which was outlined certain proposed legislation on the giving of prescriptions for narcotics. The statutes then suggested having been enacted, and receiving the approval of the Governor, were expected to become operative in September, when a violation of the new law will be regarded as a misdemeanor. Hence, every physician owes it to himself to be-

come acquainted with its stipulations. The informative letter referred to above is worthy of perusal.

(Since writing the above, Chief Madden tells us that the State's emergency fund has been greatly depleted because of forest-fire expense, and that, on that account, it is probable that the new law will not be carried out on September 19. He also states that, prior to the law's enforcement, the books to be used by physicians must first be distributed. Therefore, until such time as the California Division of Narcotic Enforcement supplies the new narcotic booklets, the procedures at present in vogue may be carried on.)

**1940 ANNUAL SESSION: HOTEL DEL CORONADO**

**Next Annual Session: Attention of Essayists and Exhibitors Requested.**—At the top of the front cover of each issue of the OFFICIAL JOURNAL appear the following notices:

**NEXT ANNUAL SESSIONS**

*California Medical Association, Hotel Del Coronado, Coronado, May 6-9, 1940.*

*American Medical Association, New York, June 10-14, 1940.*

Attention, therefore, is directed anew to these announcements, not only to remind component county societies and their members of the dates of the next annual session of the State Association, but to especially request all who have papers or scientific exhibits in mind to promptly communicate with the officers of the scientific sections, before which the papers should preferably be given. The list of section officers appears in every issue of the OFFICIAL JOURNAL, on advertising page 6. Letters should be sent to the proper section secretaries.

Communications relative to scientific exhibits should be sent to the Association Secretary at the California Medical Association central office in San Francisco.

Requests for hotel reservations should go forward to the Hotel Del Coronado, Coronado, California, in care of the assistant manager, Mr. Ernest R. Tiedemann.

**SPECIAL ASSESSMENT OF THE HOUSE OF DELEGATES**

**House of Delegates Resolution No. 6.**—At the Del Monte annual session, the House of Delegates deemed it wise to approve Substitute Resolution No. 6, which provided for a special assessment of \$10, payable by all active members, as of date of June 1, 1939. Concerning the provisions contained in the resolution, informative communications have been sent by the California Medical Association Council to all component county societies and to every member of the California Medical Association. In the current issue, also, appear the minutes of the Council's meeting held on August 5, 1939, and to these the attention is called of all members who may have special interest in the plans that were comprehended in

the various Del Monte resolutions leading to the drafting of Substitute Resolution No. 6, and who would desire an opportunity to read the report of the Committee on Public Health Education dealing with its proposed activities. (For minutes, see page 178.) \* \* \*

**Medical Profession Has Been Laggard in Publicity Work: The Remedy.**—It is generally agreed that one of the reasons why the medical profession today is the target for so many antagonistic onslaughts, is the fact that in recent years medical men and women have become so engrossed in scientific advancements in preventive and curative medicine that they have failed to take into proper consideration and evaluation the seething unrest in the social welfare phases of modern-day living. Be that as it may, here again we deal not with hypotheses, but are confronted with face-to-face problems that must be solved. Everywhere, in the press and over the air, on the lecture platform, and before clubs and gatherings of all kinds, health issues continue to be matters of discussion and propaganda, and of so pressing a nature that they will not be put aside. To believe, therefore, that such mental unrest, regarding these topics—matters now of practically popular discussion—will shortly waft itself away, and that all will soon be well, is probably nothing else than wishful thinking. It can no longer be doubted that a multitude of citizens are beginning to be skeptical concerning the altruism of physicians, thereby becoming increasingly the victims of specious thinking and propaganda, so constantly set before them in most alluring fashion.

By contrast, the medical profession has nothing to conceal. It is proud of its record of generous service to humanity. It asks for little praise, but it is pained, nevertheless, at unjust accusations and aspersions. Even though its disciples know they are largely in the right, under present conditions, that does not suffice. It must be made clear to laymen that many statements aimed at public health and medical practice methods are in error. That is why work such as is contemplated in Substitute Resolution No. 6 of the Del Monte House of Delegates, and as outlined in the report of the Special Committee on Public Health Education which the Del Monte resolution brought into being, is of the highest importance to the people of California. Members of the Association are urged to read the report, on page 179 of this issue, as given under items 11 and 16 of the August 5 Council minutes. Members of the Association are also requested to feel free to send to the Committee on Public Health Education\* any suggestions concerning publicity work.

**CHIROPRACTIC INITIATIVE TO BE ON  
NOVEMBER 7, 1939, BALLOT AS  
PROPOSITION NO. 2**

**The Way of Medical Cults.**—Cultist medicine rarely rests, and it is not necessary here to discuss why this is so. Let it suffice to state that where there is much to gain and so little to lose

there always will be found those who are willing to seek the more. That may explain in part, also, why contributions of twenty-five, fifty, or one hundred dollars are more easily obtained from the disciples of cultist healing-art practice than from licentiates of scientific and nonsectarian medicine. Many members of the latter group cannot understand why the State should expect them—from whom exacting educational and training qualifications have been demanded—to spend their dollars to protect the public from healing-art practitioners who have had insufficient training for certain work they aspire to do. These are contemplative considerations, however, of little moment when one is confronted, not with theory, but positive fact.

\* \* \*

**Proposition No. 2 (Chiropractic Initiative) Will Be on the November 7, 1939, Ballot.**—In the matter now referred to, such a fact is met with in the Chiropractic Initiative, which has been given the number, Proposition No. 2, and which, by ruling of the Attorney-General, will have a place on the "Ham and Eggs" ballot of November 7, 1939.

\* \* \*

**Cultist Medicine Seeks Always to Extend Its Scope of Practice.**—It is an interesting phenomenon to note that once a cultist group secures legal recognition from a commonwealth, its disciples and leaders, as they move forward in material prosperity, seek to broaden the scope of their practice, and to use methods and armamentariums quite different from those permitted in initial statutes pertaining to them. Thus, they usually endeavor to add to the scope of their work, the treatment of diseases and injuries, the care of which was forbidden in the laws granting them their first recognition. What has taken place in California in this respect has also come to pass in other States, likewise unfortunate enough to have multiple licensing boards.

So now, in November of the present year, the citizenry of California will be called upon to decide concerning an extension of chiropractic practice. The limitations of the existing chiropractic statute—passed by initiative vote of the California electorate in 1922—are covered in court opinions handed down by Judge John J. Van Nostrand in the Superior Court of the State of California, in and for the County of San Francisco, and printed in *CALIFORNIA AND WESTERN MEDICINE*, on page 419 of the issue of November, 1936, and on page 457 of the December, 1938, number.\*

\* \* \*

**Text of the Chiropractic Initiative.**—In the current issue, on page 211, will be found the pending Chiropractic Initiative, to appear on the November 7 ballot. For this reason, it is suggested that members of the California Medical Association take the time to read this proposed law, and then ask of themselves their own interpretations of its implications and possible results to healing-art practice in California in the future. A perusal of the court opinions, above referred to, will shed additional light; because those legal rulings proba-

\* The membership of the committee is listed in each issue of *CALIFORNIA AND WESTERN MEDICINE*, in the roster on advertising page 6.

\* See also an item in this issue, on page 213.



bly explain, in part, why so many thousands of dollars were raised to secure the necessary signatures for the November initiative, and to provide funds to carry on an educational campaign necessary for its passage.†

### SUPPORT YOUR ADVERTISERS

**We Help Ourselves by Helping Others.**—For years, on advertising page 8 of CALIFORNIA AND WESTERN MEDICINE, an "Alphabetical List of Advertisers" has been given; and there has also appeared the following footnote to the tabular list, asking readers to remember such advertising patrons:

#### COÖPERATE WITH YOUR ADVERTISERS

CALIFORNIA AND WESTERN MEDICINE, the official publication of your Association, is made possible in part by reason of the coöperation of business firms and institutions who use advertising space. Their purpose is to direct attention to their products and services to present and future patrons.

Members and readers are urged to give preference to and to patronize these advertisers. When ordering goods, mention CALIFORNIA AND WESTERN MEDICINE.

This coöperation will please the advertiser, add to advertising income, and enable your Association to increase the value of this JOURNAL to members and readers.

The truths embodied in the above text should appeal to every member of the California Medical Association. If the solicited coöperation were given generously, the reputation of the OFFICIAL JOURNAL of the California Medical Association, as a worthwhile advertising medium, would so rapidly spread among manufacturers and others who cater to the needs of the medical profession that the income from advertisements alone would greatly increase, thus making possible a lesser subscription allocation from the annual dues than has been in vogue in recent years.

\* \* \*

**United States Postal Laws Make Subscription Rate Necessary: "California and Western Medicine" Rate.**—In order to secure second-class postal rate, the United States Post Office Department demands that definite subscription rates be established for members who receive the official journals of their respective organizations. In accordance with the postal laws, the California Medical Association Council, for several years past, established the yearly subscription rate of CALIFORNIA AND WESTERN MEDICINE for Association members at three dollars, or twenty-five cents per copy. When the subscription allocation for California Medical Association members is added to the advertising income of the OFFICIAL JOURNAL, the books show a net balance in the black to the credit of CALIFORNIA AND WESTERN MEDICINE. The subscription price to nonmembers (excepting members of the Nevada State Medical Association, who also receive the JOURNAL at the three-dollar rate) is five dollars per year.

\* \* \*

**Coöperation with "California and Western Medicine" Advertisers Requested.**—It would

not be a difficult task to increase the amount of advertising in CALIFORNIA AND WESTERN MEDICINE if the standards demanded of advertisers were lowered so that proprietary and other announcements could be accepted. That, however, is something that is repugnant to the policy adopted by the California Medical Association, established when it brought the OFFICIAL JOURNAL into existence in November, 1902, to take the place of the *Annual Transactions*—a policy to which the Association has striven to be loyal during the last thirty-six years. In this connection, in the first editorial that graced Volume 1, Number 1, of the OFFICIAL JOURNAL, the founder-editor, Philip Mills Jones wrote:

The CALIFORNIA STATE JOURNAL OF MEDICINE\* will hereafter take the place of the Annual Volume of Transactions of the Medical Society of the State of California. . . . In addition to the official reports of the annual meetings of the State Society, and the papers and discussions of the Scientific Section, the JOURNAL will publish a limited number of original articles, reports of county societies, and such other matter as may be of interest.

The advertising pages of the JOURNAL will be limited in number, and will be open only to advertising matter which complies with the strictly ethical standard that is so well understood by all, yet so frequently forgotten—when there is a financial reason to forget!

\* \* \*

**Members Are Urged to Read the Advertisements in the "Official Journal."**—While more could easily be written on the topic, "Support Your Advertisers," we shall rest at this point, in the hope that members of the State Association will take to heart what has been said and follow up good intentions by regularly scanning the advertising pages of CALIFORNIA AND WESTERN MEDICINE, and writing for literature and information on any and all items in which they may have interest. They may be assured that advertisers, who help make it possible to bring to each member one of the largest of the state medical journals, will appreciate their coöperation. By giving this aid, members will be helping their advertisers, their Association, and themselves. Lend a hand!

### WAGNER BILL, S. 1620: AN ILLUMINATING DIGEST OF THE REPORT OF THE SENATE COMMITTEE

On August 4, 1939, the Committee on Education and Labor of the United States Senate, which had been holding hearings on the merits and demerits of Senator Robert F. Wagner's health program bill (S. 1620), submitted a report (No. 1139) to the Seventy-Sixth Congress. Much of the testimony offered at the hearings appeared in succeeding issues of the *Journal of the American Medical Association*.

Physicians who have kept in touch with these proceedings will be interested in the analyses made and conclusions drawn by the Senate Committee on Education and Labor, as submitted by Senator Murray. The forty-two-page report is too lengthy for publication in CALIFORNIA AND WESTERN MEDICINE, but we have pleasure in reprinting, on

† As these comments go forward to the printer, two extremely significant items appeared in the daily press. They are reprinted in this issue on page 197.

\* This was the original name of CALIFORNIA AND WESTERN MEDICINE, the California Medical Association at that time being known as the Medical Society of the State of California.

page 214, an excellent digest gleaned from the *Journal of the American Medical Association*.

This should be read by all members of the medical profession, because it indicates the nature of federal legislation that will, of a certainty, be proposed when the second session of the Seventy-Sixth Congress convenes in January, 1940. If some of the proposed legislation is then enacted, it may make for radical changes in medical practice. Take the time, therefore, to browse through the digest. Its perusal will be thought-stimulating.

**Other State Association and Component County Society News.**—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 178.

## EDITORIAL COMMENT†

### SPONDYLOLISTHESIS

Spondylolisthesis, or slipping of a vertebra, was first described as a clinical entity eighty-five years ago. Since that time there have been perhaps three eras during each of which a different attitude has been taken toward the fundamental nature of this condition.

The first descriptions of spondylolisthesis were of advanced cases which had been recognized in women in whom an obstruction to labor led, upon examination, to the discovery of a marked deformity of the lower spine. Physical signs were promulgated to facilitate the diagnosis of this condition before labor, and during the latter part of this epoch anteroposterior roentgenograms of the lower spine and pelvis were used to confirm this clinical diagnosis. Much attention was devoted to describing the abnormality and to clinical signs useful for the diagnosis thereof, but little was surmised or known regarding the exact origin of the displacements.

The second era was marked by two changes. The first was the development of satisfactory lateral roentgenologic projections of the lumbosacral region; the second, the advent of the automobile and an apparent increase in the incidence of the lesion. By lateral roentgen examination it became possible to determine not only that forward slipping (usually of the fifth lumbar body) had taken place, but also to measure its degree.

Accidental injuries to the lower back became more frequent because of the automobile, and also because of the increase in industrial employment following the turn of the century. Many of these accident cases were submitted to x-ray examinations and some showed various degrees of spondylolisthesis. It was only natural to assume that the injuries sustained resulted in the changes noted,

and it came to be generally believed that spondylolisthesis was the result of trauma to the spine.

The third and current era consists of a period of approximately twenty years, during which considerable anatomical and clinical research upon the spine, and especially the lumbosacral region, has taken place. Anatomical studies have consisted of reviews of large series of spines and x-ray studies, especially of preemployment groups. Refinements in roentgenologic technique, such as the oblique projections of the lumbar spine, now frequently used, have aided in obtaining a truer insight into the structure and mechanics of the lower spine. These studies have led to the following conceptions regarding spondylolistheses:

1. The neural arch of the involved vertebra is usually defective as a result of anomalies occurring during development. The most common anomaly is a separation, usually bilateral, of the neural arch at the isthmus or interarticular portion; this occurs in the last lumbar segment in more than 80 per cent of cases. Furthermore, as studies of infants and young individuals have been made, it has been demonstrated that spondylolisthesis is not an unusual occurrence in these groups.

2. As a result of acute trauma or, more commonly, repeated minor injuries or long-continued strain (such as the weight of the body, occupational strains, and so forth), the musculofascial and ligamentous structures maintaining the integrity of the involved vertebra stretch or give way, allowing that portion of the vertebra anterior to the bony defect to slip forward or, more correctly, to be forced downward and forward.

3. In approximately one-third of the cases where the fifth or last lumbar body slides downward on the superior sacral surface, it also rotates on the anterosuperior edge of the first sacral segment. If this occurs, the posterosuperior margin of the last lumbar body lies anterior to the postero-inferior margin of the body above it. In no instance, however, is this to be considered a posterior displacement of the fourth on the fifth body, or a "reverse spondylolisthesis."

Since low-back pain is said to be the second most frequent complaint in the field of industrial medicine, and is a frequent concomitant of allegedly compensable injuries, and since many such cases are still being awarded large sums when a spondylolisthesis is shown to be present following the injury, it behooves us to be most cautious in affirming that the bony changes present are the result of a recent trauma. Competent roentgenologic interpretation is of fundamental importance in evaluating the lesions found in these cases, and a thorough roentgen examination must be made if errors are to be prevented. Adequate examinations can rarely be made with small office or portable units. In some instances a positive statement concerning the connection of the displacement with the recent injury must be deferred until a comparison can be made with subsequent roentgen examination, usually after an interval of from four to six weeks.

450 Sutter Street.

HAROLD ARTHUR HILL,  
San Francisco.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.



### ACQUIRED HETEROSPECIFICITY WITH BACTERIA

That chemical implantation of tissue specificities takes place in pathogenic bacteria, the ingrafted or induced colloidal factor being hereditarily transmissible in the microbic cells, is a futuristic deduction currently suggested by Holtman<sup>1</sup> of the Ohio State University. If confirmed, this alleged hybridization between bacteria and environmental colloids will have numerous practical applications in diagnosis and therapeutics.

Clinical interest in possible tissue transformations of bacterial specificity was stimulated by Buchbinder,<sup>2</sup> who first suggested the view that the heterospecificity, or "Forssman antigen," demonstrable in certain intestinal bacteria, is not an essential character of these bacteria. The Forssman antigen is conceivably an implanted colloid, acquired as a result of previous contact with Forssman-positive animal tissues. That such ingrafting of an environmental specificity is a biological possibility, had been previously shown by Veblen<sup>3</sup> of Stanford University. The Stanford bacteriologist grew *B. typhosus*, *S. viridans* and other microorganisms for several generations in 10 per cent horse-serum, and found that microorganisms so grown acquired horse-protein specificity. The ingrafted specificity could not be removed by repeated washings in Ringer's solution, and was retained for at least twelve subcultures in routine culture media. In her hands the twelfth generation subculture was agglutinated by a 1:1000 dilution of antihorse rabbit precipitin, control cultures being nonagglutinated.

In order to test the possibility that the Forssman antigen is an implanted environmental character in certain gastro-intestinal bacteria, Holtman grew Forssman-negative *E. typhosa* and *B. paratyphosus* A on agar containing Forssman-positive material (*e. g.*, horse-serum), with control growths on routine Forssman-negative medium. He also enclosed Forssman-negative bacteria in collodion sacs, which were inserted into the peritoneal cavities of Forssman-positive guinea pigs. After twenty-one days' exposure to such Forssman-positive environments, the bacteria were repeatedly washed in Ringer's solution and planted on routine Forssman-free media. Holtman found that the resulting subcultures were not only Forssman-positive, but continued to form Forssman specificity for at least fifty test-tube subcultures on routine Forssman-negative media. Heat-killed bacteria similarly exposed to a Forssman environment did not acquire Forssman colloids, irremovable by washing.

Following Veblen's lead, Holtman interprets his results as suggestive evidence that Forssman antigen is incorporated in the cytoplasm of the exposed bacteria, and afterward multiplied in symbiosis with these cells. The conventional assumption of an enzymic activation of latent characters in the exposed bacteria was also considered. As a

practical application of such chemical implantation, Holtman showed that two widely different bacterial species, grown in the same Forssman-positive media, might each acquire the environmental character in sufficient titer to render the two species indistinguishable from each other by routine serological tests. Whether or not a reversal of the Buchbinder phenomenon, a destruction or removal of a heterophile character in pathogenic bacteria, is a possibility has not yet been investigated. Such removal of a fractional human specificity from pneumococci, for example, might conceivably render the corresponding antiserum nontoxic for human tissues.

P. O. Box 51.

W. H. MANWARING,  
Stanford University.

### PERIPHERAL VASCULAR DISEASES

Major vessel occlusion may be present in spite of a warm extremity. Subjective and objective sensations of warmth in an extremity are determined primarily by the amount and rate of blood flow in the superficial vessels. The surface of the extremity may feel warm to the touch, due to an adequate blood supply through the superficial vessels. The deeper tissues and muscles, however, may be suffering from a definite circulatory deficiency, giving rise to the symptoms of intermittent claudication, and even rest pain.

Calcification of the arteries, as revealed by the x-ray or palpating finger, is no true indication of the patency of the lumen of the vessel. It indicates one thing only: the presence of arteriosclerosis with calcification of the vessel wall. Calcification is a problem only when there is marked encroachment on the lumen. According to Mann et al.,<sup>1</sup> the internal diameter can be reduced 70 per cent before a 50 per cent reduction in blood flow takes place. The area of the lumen may be reduced 50 per cent without any change in blood flow, and be reduced as much as 90 per cent before a 50 per cent reduction in blood flow occurs. These experiments were on the carotid artery of the dog. Too much importance, however, to the roentgenologic evidence of arterial calcification should not be given. It should be properly evaluated.

The major peripheral vessels, as the dorsalis pedis and posterior tibial arteries, may be pulsating normally although the patient complains of intermittent claudication, lameness, and other symptoms of vascular deficiency. This is due to the occlusion of the smaller arteries and of the arterioles supplying the muscles of the extremities. The occlusive process can be present anywhere in the arterial system from the larger vessels down to the precapillary arterioles.

The dorsalis pedis is not palpable in its normal position in approximately 10 per cent of the cases.

<sup>1</sup> Holtman, D. Frank: J. Immunol., 36:405, 413 (May), 1939.

<sup>2</sup> Buchbinder, L.: Arch. Path., 19:841, 1935.

<sup>3</sup> Veblen, Becky B.: Proc. Soc. Exp. Biol. and Med., 27:204, 1929.

<sup>1</sup> Mann, F. C., Herrick, J. F., Essex, H. E., and Baldes, E. J.: The Effect on the Blood Flow of Decreasing the Lumen of a Blood Vessel, Surgery, 4:249-252 (Aug.), 1938.

It may curve outward, lying lateral to the line between the middle of the ankle and the back of the first interosseous space. Or it may be completely absent, being replaced by a large anterior peroneal artery. Other locations are possible.

Linear measuring of the circumference of the extremities at selected points is a good policy. Where the circulation is deficient, the tissues will be undernourished and atrophied, with a resultant reduction in circumference. Measurements will aid in checking the results of treatment and progress of the disease. These are much simpler to take than surface temperatures and oscillometer readings, and are very important in the study of the disease.

Some of the presumable symptoms of a vascular disorder—as undue tiredness, sensation of heaviness and early fatiguability in the calves, especially in the male—may be due to the onset of the climacteric. In these cases, substitution therapy may be necessary.

Do not inject or operate on a patient for varicose veins unless you are sure that the deep veins are adequate and that the patient is not suffering from a peripheral vascular disease such as thromboangiitis obliterans.

The majority of patients get better on bed rest. It is the best form of treatment and it is surprising what good results can be obtained by this method.

2007 Wilshire Boulevard.

ROY J. POPKIN,  
Los Angeles.

*Hemolytic Streptococcic Meningitis Treated with Sulfanilamide.*—Ten of twelve patients with hemolytic streptococcic meningitis treated with sulfanilamide recovered, as compared with one of eleven patients treated with specific drugs and serums, spinal drainage, and blood transfusions, John A. Toomey, M. D., and E. Robbins Kimball, Jr., M. D., Cleveland, report in *The Journal of the American Medical Association*.

Hemolytic meningitis is inflammation of a membrane of the brain and spinal cord caused by a streptococcus capable of destroying or dissolving the red blood corpuscles.

Doctors Toomey and Kimball emphasize the fact that sulfanilamide alone may prolong the life of a patient ill with this type of meningitis, but it will not give complete cure if there is an undiscovered focus of infection. In a few cases in which the focus was not recognized immediately, the progress of the disease was held stationary. There was no cure, however, and improvement occurred only when operations eradicating the infection were performed.

The authors have not found it necessary to adopt the more involved methods used by others, but state that their procedures have given as good results. "Our practice," they assert, "has been to give a massive initial dose of the drug (sulfanilamide) followed at once by frequent maintaining doses, to have the patient operated on as soon as possible for removal of the focus of infection and to leave the fluid balance of the spine alone unless the pressure is extremely high."

A total of 102 cases described in recent literature were treated with sulfanilamide or prontosil, or both, and eighty-one of these recovered.

## ORIGINAL ARTICLES

### SOME INDICATIONS FOR ROENTGEN RAY TREATMENT\*

By U. V. PORTMANN, M. D.  
Cleveland, Ohio

#### PART I

THE indications for roentgen ray and radium treatment are innumerable, volumes having been written on this subject. It will be possible in this paper to give only a broad outline of the usefulness and applicability of these methods of treating different pathologic processes and to discuss a few of them specifically.

Many physicians and surgeons have neither the time nor the inclination to peruse radiologic journals. Therefore, they may not be familiar with the advances made in the technical procedures or the most recently proved indications or benefits which may be derived from irradiation for certain diseases, so they must depend for this information upon conference with their radiologist colleagues.

The medical world has become so statistics-minded that sometimes there is skepticism about the benefits of a therapeutic procedure as compared with others, unless mathematical proof substantiates the effectiveness of a newer method advocated. Definite palliative effects and improvements may be brought about in the economic status of patients by certain methods of treatment, but often cannot be calculated by any mathematical formulae. So it is with irradiation, which has proved to be of so great value in the treatment of many pathologic conditions that it no longer needs defense, although sometimes its benefits cannot be measured.

There was a time, not many years ago, when there was confusion in the minds of radiologists and disagreement about the indications or preferences for either roentgen ray or radium in the treatment of various conditions. Differences of opinion lead to progress, however, and experience and experiment prove that both the roentgen ray and radium have their own spheres of usefulness; that the rays have the same physical and biologic effects; that the use of either or both depends largely upon availability, the ease of application, or whether treatment must be given to small or large areas. The biologic reactions to both types of rays depend upon their power to modify or completely destroy cellular functions, according to the quantity and rate of administration. Each may be effectively employed alone for different and similar pathologic conditions, and more often in combination, or sometimes to supplement surgical procedures either before or after operation.

It may be said, in general, that roentgen ray and radium treatment is indicated and useful (1) for some benign tumors; (2) for most malignant tumors; (3) for many acute and chronic inflammatory processes; (4) for certain diseases that have not yet been proved to be either inflammatory or

\* Guest Speaker's paper. Read before the third general meeting of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.



neoplastic; and (5) to modify glandular functions that are abnormal.

It is not my purpose to discuss radium treatment except coincidentally; rather, I shall limit my remarks to some of the indications for roentgenotherapy in the hope of stimulating interest in the investigation of the application of this method of treatment for pathologic conditions in which it has not been tried or has failed—possibly because techniques which had been employed were faulty. No statistics will be presented, technical procedures will not be discussed, nor will the use of roentgenotherapy in dermatology be given consideration.

#### BENIGN TUMORS

Irradiation is indicated for but few benign tumors, because most of them are composed of highly differentiated tissues that approach normal; therefore, they are relatively resistant to the direct destructive effects of the rays. However, there are some that are especially amenable to irradiation, among them being hemangiomas in any location and especially those of children, endometrial transplants, fibromyomata of the uterus, papillomas in certain locations, giant-cell tumors of the bone and certain benign tumors of the endocrine glands, the abnormal functions of which may be modified.

Small superficial hemangiomas that are seen in infants probably are best treated with applications of radium, and it is easier to apply to uncontrollable children. Treatment should be given as early in life as possible. Occasionally quite large hemangiomas occur for which it is impractical to use radium because of their extent. Most of these, in children, may be very successfully treated by roentgen rays. However, those in adults seldom are benefited.

Strictly speaking, endometrial transplants (endometriosis) may not be considered as benign neoplasms. Endometrial tissue may become implanted on the pelvic peritoneum and increase to such an extent that a considerable area may be involved; or they may be quite as circumscribed as a tumor. The condition may result from intra-uterine or ovarian operations, following pregnancy, or endometrial tissue may become implanted by contamination of abdominal wounds when the uterus is opened during operations. At the time of menstruation, transplanted endometrial tissue becomes engorged with blood, just as does the endometrium of the uterus. When this occurs it may cause considerable discomfort from pressure. The condition is successfully treated by stopping ovarian function permanently or temporarily by roentgenotherapy according to individual indications.

The indications and contraindications for irradiation for uterine fibromyomata are now generally agreed upon:

1. When hemorrhage is severe, either hysterectomy or radium treatment are preferred to roentgenotherapy. Radium, when applied within the uterus, has a direct effect upon the endometrium and usually will stop bleeding quite promptly before suppression of ovarian activity or the tumor *per se* is affected. Roentgen treatment stops ovarian function and directly affects fibroid tumors and endo-

metrium, but these reactions are delayed. Usually one menstrual cycle ensues even after adequate roentgenotherapy, and this sometimes may be incapacitating. However, when it is not urgent that the hemorrhage be stopped, then roentgen treatment is preferable because of the ease of application, hospitalization and operative procedures are avoided, and during the course of treatment the patient may carry on her usual activities.

2. Women in the child-bearing ages up to forty should not receive irradiation, but should be operated upon to preserve ovarian function, unless there are contra-indications to operation because of concurrent diseases which would make surgical procedures unduly hazardous.

3. Fibroid tumors that present evidences of marked degeneration should be removed, although the presence of moderate pelvic inflammation does not contra-indicate irradiation for fibroids; in fact, this condition will be benefited if the treatment is given with discretion.

According to the experiences of radiologists, approximately 90 to 95 per cent of fibromyomata that have been irradiated have been clinically cured. Over a period of almost a year, the tumors slowly reduce in size. Sometimes vestiges of the tumor may be found even after adequate irradiation, although the symptoms have been entirely relieved by treatment. This, however, does not indicate that the treatment has been a failure, because the mere presence of the small remnant is of no clinical significance and its removal is unnecessary.

Papillomas of the larynx may recur repeatedly after operations; but, especially in children, they may be treated successfully by roentgenotherapy. Papillomatous tumors or papillomatosis of the urinary bladder also may yield to intensive treatment. We have seen cases in which the distressing symptoms have been entirely relieved and the tumors have disappeared completely.

Many giant cell tumors of bone have been successfully treated. These tumors are primarily benign, but occasionally one degenerates to become malignant. The objective of roentgen treatment is not to destroy the tumor cells, but to inhibit their growth sufficiently to permit normal osteogenic reactions; therefore, the treatment is given in relatively moderate dosages. Overenthusiastic or poorly timed treatment may stop osteogenesis which has developed and defeat the purposes of the treatment. In addition, deforming, unsightly tumors in such locations as in the bones of the lower radius and ulna or the ankle probably should be operated upon primarily, especially in women, because they are accessible and the unsightly tumor mass still may remain after irradiation.

#### MALIGNANT TUMORS

It would be presumptuous of me to talk here in California about the latest developments in roentgenotherapy for malignant diseases where physicists and radiologists have led the world in laboratory and clinical researches, and have developed apparatus the like of which is available in but few medical centers. When these workers began their investigations in the treatment of malignant

neoplasms, they knew (1) that tissues vary in their resistance or sensitivity to roentgen rays, and (2) that any neoplastic tissue may be completely destroyed by irradiation if a sufficient intensity can be administered without damage to normal, physiologically essential structures. (3) They hoped, also, that they might improve the quality and increase the quantity of radiation that can be administered safely and thereby improve the results. All of you are familiar with their invaluable contributions to the science of radiology.

It would be impossible even to enumerate the indications for roentgen-ray treatment of the various types of malignant tumors in different locations. I believe that, at this time, except for superficial tumors, irradiation is indicated in the treatment of malignant tumors only when there is no possibility of cure by operation or intensive radium treatment of localized neoplasms. There is considerable difference between "operability" and "curability." There are but few locations in the body where malignant tumors occur that operations cannot be performed from the technical standpoints, but this does not necessarily mean that cure may be effected or operations justified. Experienced, conscientious surgeons will not subject patients to surgical procedures if there is no possibility of cure, with the occasional exception of those cases where it is used solely for palliation. The clinical manifestations of "incurability" should be sought and recognized, and patients having them should not be operated upon, but should be treated by irradiation if the physical condition warrants any attempt at treatment. A very large proportion of patients with malignant tumors are "incurable," although operations may be performed upon a great many of them. Such practice should be condemned.

There are some conditions for which preoperative irradiation may be indicated, but probably these are very few. For tumors that offer a reasonable degree of assurance that they can be safely and completely removed, operations offer the quickest and most certain method for cure with some very definite exceptions. Those which present clinical evidences that they are too extensive to be removed completely should be irradiated. If a neoplasm can be completely destroyed by irradiation, operation following the treatment would be useless. When a malignant neoplasm has been irradiated because it is extensive and the treatment fails to eradicate it completely, then it will still be of the same extent after treatment, although possibly of less bulk, and it still would not be removable; therefore, operation at this time also could not effect a cure.

On the other hand, there are many indications for roentgenotherapy following operations, the treatment being given in order to delay or prevent extension of a malignant neoplasm if there is any doubt whatever that it has not been completely removed. This is true in a very large proportion of cases even after what appears to be adequate operations. Irradiation should be given as soon as possible before further extension takes place. It is illogical to wait until recurrences or metastases do develop, as has been advocated, before giving irradiation when there is every indication that ma-

lignant tissues remain after operation. Certainly surgeons, themselves, condemn the practice of procrastination in the treatment of cancer, and radiologists should do the same. However, when postoperative recurrences and metastases do develop they may be effectively treated by irradiation for amelioration of distressing symptoms and to prolong life and economic usefulness if possible.

In passing judgment about the benefits of roentgenotherapy for cancer in any location, it should be borne in mind that the results of this treatment for postoperative recurrences or metastases cannot be justifiably compared with other methods of treatment employed for primary tumors. There are not a few reports in the medical literature by individuals apparently unfamiliar with radiological procedure, and in which the results of operation alone for malignant tumors in certain locations are purported to be compared with the results from postoperative roentgenotherapy, and the conclusion is drawn that the treatment has not been of benefit. A careful analysis of the statistics on which this conclusion is based will show that the series of irradiated cases will contain a larger proportion of advanced cases than the nonirradiated and also some irradiated some time after operation primarily for postoperative recurrences or for metastases. Conclusions based upon such inequitable comparisons are not justifiable. As has been mentioned previously, palliative benefits cannot be calculated.

I should like to dismiss the subject of indications for the roentgenotherapy for malignant tumors with the suggestion that the best way to find out about the indications or limitations for any particular case is to consult a competent radiologist.

#### ACUTE INFLAMMATION

Roentgenotherapy offers a large field of usefulness in acute inflammations in many locations. This treatment usually gives prompt relief from pain, fever often abates, and the natural course of the process may be aborted.

Very soon after roentgen rays were discovered it was theorized that they might be a component of sunlight. Heliotherapy had been used for the treatment of tuberculosis, and sunlight was known to be mildly germicidal. Therefore, cultures of tubercle bacilli and other pathogenic organisms were subjected to roentgen rays, but eventually it was proved that the rays are not directly germicidal. Nevertheless, infectious processes were benefited. Perhaps the best explanation of the effects was given by Dr. Arthur Desjardins. According to his theory the effects are due to the destruction of the particularly radiosensitive leukocytes, especially lymphocytes, that infiltrate about an inflammatory process. It is thought that when phagocytic blood cells are destroyed by irradiation, antibodies and other protective substances which these cells contain are liberated to overwhelm infection. The roentgen-ray treatment of acute inflammation, therefore, requires few and small doses; in fact, large doses are deleterious.

Roentgen-ray therapy is indicated for furuncles, especially those that develop in the nasal and audi-



tory canals, and on the upper lip. In the latter location, furuncles are particularly dangerous, and incisions are contra-indicated because of the character of the venous circulation directly to the base of the brain, and the hazard of serious intracranial infection.

Carbuncles seldom should be treated surgically, but rather by roentgenotherapy and other conservative measures. This statement may seem iconoclastic and heresy, especially to surgeons, but these lesions are usually draining. The natural resistances to the infection necessary for healing are enhanced by irradiation; pain is relieved, and no scarring ensues, such as must result from surgical excision.

Some acute inflammations of the eye and eyelids yield promptly to roentgenotherapy. The small doses employed will not damage the lens, but treatment should be given cautiously to young children.

Sinusitis and mastoiditis treated in the early stages usually will be aborted and the necessity for more radical procedures obviated, and lymphoid tissue in the nasopharynx that may remain or develop after adenoidectomy and tonsillectomy often will disappear following irradiation.

Acute parotitis is one of the complications which may follow operations, especially those upon the colon. The mortality rate is high. Irradiation in the early stages is effective in controlling the inflammation; it relieves the pain and fever, and has been shown to reduce the mortality rate. Roentgenotherapy usually is preferable to radium because of the ease of application; however, radium packs will be just as effective and sometimes more convenient when patients cannot be moved.

Parotid fistulae develop when Stenson's duct is severed by accident or surgical incision. A great many operations have been devised to repair the duct when severed, but they are usually unsuccessful; the drainage of saliva from these fistulae is very troublesome, especially at meal time. Almost always the gland is infected and painful. Having observed that the function of the salivary glands is suppressed by irradiation, some years ago we deliberately tried to suppress the function of the parotid gland when fistula was present, and that repeated operations had failed to cure, in order to reduce the inflammation and by stopping the production of saliva to permit the fistula to heal. In every case prompt relief of inflammation and pain has followed treatment, the drainage ceased, the fistula closed and the function returned in three or four months; and there has been normal excretion into the mouth.<sup>1</sup>

Probably one of the most recent developments in the use of roentgenotherapy for a specific infection has been in the treatment of gas gangrene. One of the latest reports was made by Dr. James F. Kelly,<sup>2</sup> who has made an intensive study of the subject. The infection by the bacillus of Welch occurs occasionally in accidental wounds; therefore, institutions with large accident services not infrequently encounter this fatal complication. Roentgenotherapy given early is almost a specific, and has reduced the mortality rate, shortened convalescence, and obviated the necessity and hazard of surgical procedures.

We have recently become interested in the treatment of the acute and subacute encephalitis, which sometimes are sequelae of measles, influenza, and other similar diseases, and also encephalitis lethargica. Roentgenotherapy for epidemic encephalitis probably was first tried with reports of benefit as early as 1929. Since then others have employed the procedure and made contradictory reports. The results of some experimental work upon animals also has been published. The chief difficulty in interpreting the results is that the clinical diagnosis is not easy, the signs and symptoms are varied and sometimes obscure, and tend to disappear spontaneously. However, patients whom we have treated have improved, in the judgment of the clinicians. The signs and symptoms, including headaches, palsies, diplopia, and even oculogyric crises, have disappeared promptly in cases in which there was reason to believe the diagnosis was correct. The various chronic forms, including Parkinson's disease, have not shown improvement.

It may be very much worth while to give roentgenotherapy to the spinal root ganglia for patients with thrombo-angiitis obliterans. One of our patients was treated over five years ago; his toes, which were gangrenous, healed, other evidences of the disease disappeared, and he has carried on his usual activities since, four months after treatment was given.

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(To Be Continued)

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#### WATER ABSORPTION FROM THE COLON AND ITS RELATION TO MOTILITY\*

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THIS paper will bring nothing new to the physiologist, but the subject is being called to your attention, as roentgenologists, for its application in routine studies of the colon.

It is well to remember that, primarily, it is the function of the colon to remove water from the bowel residue, particularly in the proximal portion, where the content is mushy in consistency. This bowel content should have a normal  $p^H$  threshold of 7.2 and a specific gravity of water, with the water content at 70 per cent.

The colon itself, which floats in the abdomen, has both peristaltic and antiperistaltic movements, as well as churning, mixing and mass movements. The major peristaltic and antiperistaltic movements take place chiefly in the proximal bowel, and all of these actions are either enhanced or diminished by the change in the water content of that of the residue.

\* Chairman's address. Read before the Section on Radiology of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

TABLE 1.—Percentage Relationships

	Cases (160)	First Examination		Second Examination		Remarks
		Motility Hours	Average Per Cent Water	Motility Hours	Average Per Cent Water	
1. ADHESIONS						
Proximal colon (above cecal pouch)	10	60	78	49	70	
Midcolon (postoperative)	10	51	73	48	70	
2. ULCERATIVE COLITIS						
Amebic	26	18	82	38	68	Return to normal. Probably due to limited involvement in proximal colon. No change because of extensive involvement.
Bargans	6	20	76	46	69	
Tuberculous (advanced)	2	16	84	18	84	
3. MUCOUS COLITIS (no germ isolated)	22	19 (6-26)	88	44	73	
4. DIVERTICULOSIS (proximal colon)	18	72	60	49	70	Retention in the diverticuli a minimum of 10 per cent in the bowel.
5. DIVERTICULITIS (proximal colon) 4 clinical 2 surgical	6	78	64	50	70	
6. CONSTIPATION	40	84 (74-84)	32	49	70	All over 72-hour evacuation time.
7. IRRITABLE COLON	20	21 (6-24)	80	47	70	

The more irritating the content of the bowel, the more rapid will be its movements and its final emptying, inasmuch as the increase of the mucus content over the normal hinders the more than normal absorption of water and thus increases peristalsis. The best explanation of this phenomenon is that mucus acts as a regulator or absorber even though the cells secreting mucus have no nerve fibers.

Water is never free in fecal matter, but held in chemical combination with the colloidal particles by a peculiar property known as imbibition.

Without reviewing the extensive experimental work done by physiologists in this field, allow me to outline a minor attempt, by myself, after isolating the colon and then obtaining the absorption values of innumerable foods and drugs, to evaluate the relationship of the water content of the bowel to motility.

#### AUTHOR'S STUDY

Two hundred and thirty cases have been observed, with a stool study on each case as to water content of the barium mixture used from the first to the last evacuation. Only four cases must be removed from the group because of such marked dryness of the final, retained material in the terminal bowel, that interference was necessary to relieve the patient. This difficulty occurred early in the series and probably will not recur in the light of our present methods of examination. The two hundred and thirty cases mentioned were those in which the entire upper gastro-intestinal tract, including the gall-bladder, were found to be free of all pathology, and a forty-eight-hour emptying time of the entire gastro-intestinal tract was deemed to be normal. In these cases the entire ingested meal was found in the colon at twenty-four hours, the distribution varying with the pathology. Forty cases showed an average water content, of the entire evacuated meal, of 71 per cent and no colonic

pathology. The age period ranged from twenty-two to sixty years, with practically no relationship to the observations. All outside stimuli, such as nervousness and drugs, were eliminated as completely as possible. The remaining 186 cases showed a water variation of from 22 to 98 per cent, depending on the pathology, and later verified by either surgery or medical interference, and a recheck in 160 cases of the 186 cases, by laboratory evaluation of the water content and its return to approximately 70 per cent, as well as a gastro-intestinal study showing normal motility.

Thus Table 1, dealing with 160 rechecked cases, may be of some value in aiding a diagnosis of colonic pathology in its relation to the changed water content; remembering only that pathology in the sigmoid and rectum do not affect the water percentage, inasmuch as absorption only takes place in the proximal one-half. This is likewise true of appendiceal pathology without adhesions, in which there is present no ascending bowel involvement.

#### COMMENT

The most striking observation is that of markedly increased motility in the presence of the inflammatory processes; the irritation causing a marked increase in the mucus and consequent increased water content.

From everyday observation it is recognized that a diarrhea has an increased water content of the stool that is obvious, but the majority of the patients considered in this group showed not only the diminished consistency usually seen, but a sharply increased water content by actual measurement. This point was particularly evident in the twenty-two cases of mucous colitis, where the greatest percentage of water content was associated with the obviously great amount of mucus. In all other inflammatory processes, the patients, themselves, invariably mentioned the sensation of the presence



of mucus; and even though the amount was actually less, the water content still remained high and in direct proportion to the amount of mucus.

Thus, conversely, in the largest group of forty, where constipation was the only finding, there was present no mucus in the majority of cases, and so of necessity an average of less than one-half the normal water content.

It can be seen from the table presented that the water content of the bowel has a definite relationship to the pathology of the proximal portion of the colon, with the suggestion that when such a change is correlated with motility, it may be of value in suggesting a diagnosis and thus aid the internist in eliminating the causes of the excess or lack of mucus present.

Of all the normal food products ingested, it has been found that starch will act as the chief agent in the increase of mucus and thus stabilize the water content.

We have had a practice of adding two heaping tablespoonfuls of cracker or bread crumbs to the malt and barium meal, with just that one purpose in mind, and have found it eminently satisfactory.

Since the water content is in direct proportion to the amount of mucus present, and the latter also is in direct proportion to the motility, with the exception of the twenty cases of adhesions first mentioned, the thought is suggested that, with a heavy starch intake in the barium meal, a more thorough study of the motility of the colon could be made.

1930 Wilshire Boulevard.

## PHARYNGO-ESOPHAGEAL DIVERTICULA\*

### MODIFIED TECHNIQUE FOR ONE-STAGE OPERATION

By JOHN HUNT SHEPHARD, M. D.  
San Jose

DISCUSSION by Charles S. Roller, M. D. (Woodland);  
F. B. Settle, M. D. (Long Beach).

**D**IVERTICULA of the esophagus have been recognized for over a hundred years. In 1840 Rokitansky described two types, and classified them into pulsion diverticula—those developing as the result of internal esophageal pressure; and traction diverticula—those resulting from the contraction of inflammatory tissue adjacent to the esophagus.

#### PATHOLOGY

Traction diverticula usually occur in the middle and lower third of the esophagus, and only rarely give rise to severe symptoms, though often cause a mild sensation of choking or a paroxysm of coughing during eating.

Pulsion diverticula practically always arise from the posterior wall of the pharyngo-esophageal junction, opposite the cricoid cartilage, where defective development of the muscles results in a weakened area. They are, in reality, hernias of the submucosa and mucosa, through this area poorly protected by muscle. They develop very slowly and usually give



Fig. 1.—Diverticulum delivered through incision along anterior border of the sternomastoid muscle.

a history of several years of throat irritation or dysphagia.

On account of the relationship of the trachea, the esophagus and the fascial planes in this region, the vast majority of esophageal diverticula burrow somewhat to the left side of the neck as enlargement progresses. In extreme cases the pouch may extend well down into the mediastinum.

#### SYMPTOMS

The first symptom noted is the sensation of particles of food lodging in the throat, relieved by a few sips of water or a little coughing. As time passes, this becomes more frequent until it is of daily occurrence. Next, the patient notes a full feeling in the throat after taking food, especially liquids, and pressure on the throat, especially on the left side, or various movements of the head and neck will cause some food to be forced into the throat. When the pouch attains sufficient size to hold an ounce, pressure on the left side of the neck, immediately after drinking water, will cause it to be returned to the throat with a peculiar audible sound.

In the presence of a large diverticulum, almost complete obstruction of the esophagus may result. The patient may have spent the greater part of his time in eating and regurgitating in order to sustain life.

While the symptoms may be very suggestive of a diverticulum, the final diagnosis is made by the x-ray and the esophageal bougie.

#### DIAGNOSIS

Films taken immediately after the administration of an aqueous suspension of barium reveals the pocketing of the barium in the diverticulum, out-

\* Read before the General Surgery Section of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

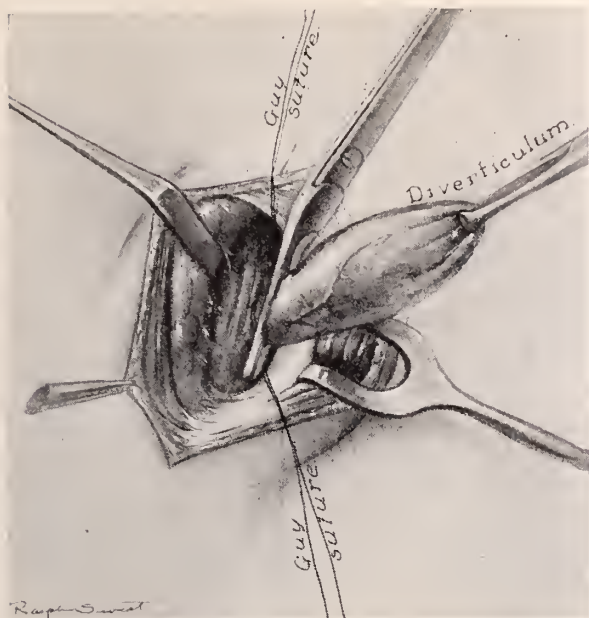


Fig. 2.—Guy sutures in place and special clamp applied to neck of diverticulum.

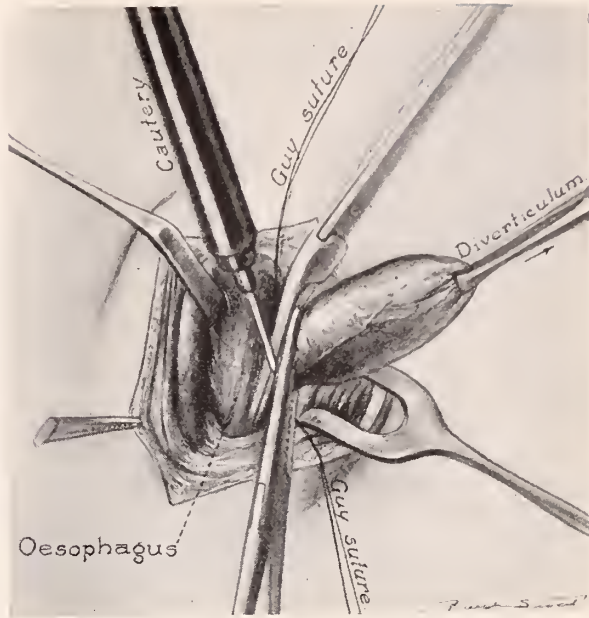


Fig. 3.—Diverticulum being cut off with cautery.

lining its size and position. The only lesion with which it may be confounded is dilatation of the esophagus above an organic stricture.

There is one contraindication to the administration of barium to patients complaining of dysphagia. It is the occasional presence of a tracheo-esophageal fistula, and it is the clinician's obligation to at least suspect its presence and warn the roentgenologist of its possibility; for if barium enters the lung, pneumonia usually follows.

When the x-ray reveals evidence of interference with the normal passage of the barium, the patient should be instructed to swallow two yards of a fine silk thread on each of two successive days. While some of the thread may lodge in the diverticulum, it will find its way down the esophagus through the stomach and become anchored in the coils of intestine. A perforated olive, attached to a flexible tip on a whalebone bougie, is threaded on the silk thread and passed through the pharynx, entering the diverticulum, and meeting obstruction at the bottom of the pouch. The position of the teeth on the whalebone shaft is noted. The string is then drawn taut, causing the bougie to elevate. When pulling on the string causes no further elevation of the bougie, the position of the teeth on the whalebone staff is again noted. The difference in the change of the position of the teeth on the staff gives the depth of the diverticulum. With the string then held taut, the bougie can be passed down the esophagus into the stomach.

When the pocketing of the barium is in a dilated esophagus above an organic stricture, this change in the position of the bougie does not occur. While such a lesion is rare, it should be ruled out before a positive diagnosis of pharyngo-esophageal diverticulum is made.

#### TREATMENT

The first step in the treatment of all lesions of the esophagus, requiring the passing of bougies, is

the establishment of the "string guide," introduced by Mixer and frequently emphasized by H. S. Plummer. It is surprising how the silk thread finds its way through even a very tight stricture. After passing through the stomach, it becomes anchored in the coils of the intestine. When pulling up the slack from the esophagus and stomach immediately prior to instrumentation, the tip of the index finger should be placed beneath the string at the base of the tongue to protect it from being irritated or even cut by the string.

In large, long-standing diverticula, the patient's nutrition may be very poor, and two or three weeks of tube feeding may be necessary before operation. With a hot wire a guide-hole can be burnt from the tip to the eye of a 22-F soft rubber catheter. By threading this over the string, and holding the string taut, the catheter can be introduced down the esophagus past the diverticulum and the patient fed through the catheter. Following the operation, feeding can thus be continued; but a 14-F catheter should be used.

*Anesthetic.*—Cervical block anesthesia, with local infiltration along the line of incision, is most satisfactory.

#### INITIAL OPERATIVE PROCEDURES

An incision along the anterior border of the sternomastoid muscle, or an oblique incision one and one-quarter inches above the clavicle, extending from the posterior margin of the sternomastoid muscle to the midline of the neck, may be used.

The sternomastoid and anterior belly of the omohyoid muscles, and the carotid sheath, are retracted laterally. The sternothyroid and sternohyoid muscles and the lateral lobe of the thyroid gland are retracted mesially. At times a branch of the inferior thyroid vessels may have to be severed. The diverticulum will be found lying against the posterior wall of the esophagus and projecting slightly to the side. If it is not readily located, a soft rubber catheter may be passed through the





Fig. 4.—Method of closure after diverticulum is cut off.

pharynx into the diverticulum, making it easy of identification. Careful blunt dissection frees the diverticulum and its neck, or communication with the esophagus, must be exposed in its entirety.

#### SUBSEQUENT OPERATIVE PROCEDURES

The following procedures for treatment of the diverticulum from this point have been recommended:

1. Excision of the neck of the sac, step by step, suturing the walls as excision progresses, followed by covering the line of suture with adventitia tissue.
2. The application of multiple purse strings, puckering up the sac into a mass along the wall of the esophagus.
3. Invagination of the sac into the esophagus and suture of the invaginated base, allowing the sac to hang loose in the esophagus.
4. Ligation of the neck of the sac. Cutting through the adventitia and submucous tissue distal to the ligature. Ligation of the mucosa and severance of same distal to the ligature. Suture of the submucosa and adventitia over the mucosa ligature.
5. A two-stage operation: The first stage, consisting of applying a ligature around the neck of the sac, or only twisting the neck one and one-half turns; bringing the sac out through the upper angle of the incision and suturing it to the skin; packing the lower part of the incision with iodoform gauze. Second stage: About one week later, removing the packing; cutting off the sac with the cautery, and partial closure of the wound.

#### OBJECTIVES IN OPERATIVE PROCEDURES

The objectives to be sought for in the operative cure of diverticula of the esophagus are: (1) To secure a normal contour and caliber to the esophagus, with a firm closure of the defect in the wall; (2) an aseptic technique.

Of the above methods, the first disturbs the contour and caliber less than any of the others, but offers considerable opportunity for contamination

of the operative field. I wish to present a technique which I believe comes nearer to fulfilling the two objectives than any so far reported.

#### AUTHOR'S PROCEDURE

After the neck of the diverticulum is freely isolated and the line of excision determined, silk traction or guy sutures are placed at the upper and lower junction of the diverticulum with the esophagus. Since the operation is being performed under unilateral cervical block anesthesia, there is no danger of aspiration of any of the contents into the lungs.

A special angle clamp is then applied to the neck of the diverticulum distal to the two guy sutures, just far enough removed from the esophagus to allow for the introduction of sutures. The sac is then removed with the cautery. Though this clamp is light, it is sufficiently powerful, with the sealing effect of the cautery, to temporarily freeze the walls together, the same as a Payr clamp and cautery acts in a pylorotomy. Using 00000 chromic gut, a running suture is placed over the clamp such as used on the duodenal stump in a pylorotomy. Tightening of the suture after removal of the clamp inverts the severed surfaces, and by properly holding the guy sutures no distortion of the lumen of the esophagus occurs. Several interrupted sutures of fine silk reinforce the closure, and the fibers at the lower level of the constrictor muscles of the pharynx can be used to reinforce the area.

While I believe primary closure of the incision is perfectly safe, a small Penrose drain should be inserted until further experience proves or disproves the aseptic efficiency of this technique.

#### SUMMARY

1. A brief discussion of the diagnosis of esophageal diverticula.
2. Attention is called to various operative procedures for their treatment, and a description of a modified technique for a one-stage operation.

609 Medico-Dental Building.

#### DISCUSSION

CHARLES S. ROLLER, M.D. (Woodland Clinic, Woodland).—Doctor Shephard's operation, in first carefully freeing the neck of the sac, placing guy sutures, using special clamps, removing the sac with the cautery, and then using a running inverting suture, theoretically removes the diverticula and seals the neck of the sac without contaminating the mediastinum. Further interrupted sutures of silk, utilizing the fascia and the lower fibres of the constrictor muscles of the pharynx, complete the closure. A drain is very wisely inserted.

This operation in one stage requires a maximum of surgical skill and meticulous care to insure complete closure and no infection of the mediastinum during operation. In addition, it must also insure such perfect closure and perfect suture tension that, in all likelihood, union will be primary. Unless one is certain of his technique, may I say that the two-stage removal gives most excellent results, and in the average hands may still be the safest operation. In saying this, it is with the distinct understanding that I believe definite progress will be made if, in the future, experience proves that we can safely accomplish this operation in one stage. Inflammation or diverticulitis of the sac, or a very broad neck, or insufficient tissue to insure an absolutely satisfactory closure of the neck of the sac, are, in my opinion, indications for the two-stage operation. I believe that in doing this surgery, one should not make up his mind at the start that he is going to do a one-stage

operation, but should pick the cases at operation that he believes can be done with safety to the patient by the one-stage procedure.

Aspiration and drying of the interior of the sac at operation, and lighting of the sac with the esophagoscope by an expert esophagoscopist during operation—as mentioned by Babcock and Chevalier Jackson—should be of value during this procedure.

It also occurs to me that, after separation of the sac, if it is not too large, it might possibly be inverted into the esophagus with the aid of the esophagoscopist, and the sac neck closed externally by well-placed sutures, and the sac excised from the interior of the esophagus by the esophagoscopist. Whether this is a rational procedure I do not know, but it seems that it might lessen the danger of contamination of the mediastinum, since the esophagus would be closed externally before any excision of the sac was done.



F. B. SETTLE, M.D. (117 East Eighth Street, Long Beach).—Doctor Shepard's paper is very timely, since it brings to our attention a condition which is not common in private surgical practice, as a rule, the average surgeon seeing only an occasional case during the year. His comments on the etiology, the types, and the symptoms are adequate and do not require reiteration.

I concur in his diagnostic and preoperative procedures, but also believe that a direct esophagoscopy examination is of great value in determining the size of the opening of the diverticulum, the presence or absence of ulceration of the esophagus, and the possible etiological factors entering into the formation of the weakened muscular wall at the junction of the pharynx and esophagus. The swallowed string may be used in conjunction with the esophagoscope.

Doctor Shepard's modified technique for a one-stage operation is a definite contribution to the surgical treatment of esophageal diverticuli, since, insofar as I know, his use of the traction sutures is original. This method should add materially in accomplishing an aseptic operation, and in preserving a normal contour of the lumen of the esophagus. The use of a small right-angle, crushing clamp to the neck of the sac, excising the sac with a cautery and inverting the stump with a running suture, affords an ideal closure of the opening. I have used the small right-angle, cystic duct clamp in a similar manner on several occasions, and have found it satisfactory, both in the one-stage operation and in the second of the two-stage procedures.

Regardless of the method of technique I believe that the most important factor is a careful and minute freeing of the fibers of the inferior constrictor and cricopharyngeus muscles from around the neck of the diverticulum, securing good, free mucosa, thus avoiding possible sacculization which might otherwise be overlooked and cause recurrence of the diverticulum, a condition simulating the recurrence of inguinal hernia. I have also found a loop, similar to the type used by the eye-men, to be of great assistance in magnifying the field of operation.

I think that one should adopt either the one- or two-stage operation, depending upon the individual case, the condition of the patient being the determining factor. Oftentimes in elderly, emaciated patients the first of the two-stage procedures seems sufficient. This was called to my attention a number of years ago in a middle-aged man who, following the first of a two-stage procedure, was forced to leave the hospital because of death in the family. At the second operation, some six or eight weeks later, there was only a small remnant of the original sac. I have doubted the necessity of removing this remnant.

It has, of course, been noted at the second of a two-stage procedure that the sac is often smaller, contracted, and somewhat indurated. I have since followed only the first of the two-stage procedure in two other instances, the patients being apparently relieved, and refusing to submit to the second operation.

A cervical block, either alone or combined with direct infiltration, affords an ideal anesthetic. However, if the sac is difficult to locate, inhalation anesthetic and the use of an esophagoscope are of great value. I believe that a longitudinal incision along the anterior border of the sternomastoid muscle gives a freer approach, and if a two-stage procedure is selected it becomes much easier to anchor the

fundus of the diverticulum well above the opening into the esophagus. This is a very important factor in establishing free drainage of the sac and permitting drainage of the lower angle of the wound when mediastinal contamination might be suspected.

I believe it very inadvisable to twist or ligate the neck of the sac in the first of the two-stage procedure, and penetration of the lining of the sac with suture should be avoided.

Prolonged postoperative feeding with a Levine tube is of great value. I have found dilatation of the esophagus unnecessary following surgical treatment for esophageal diverticuli, either in the one-stage, or following the second operation of the two-stage procedure.

## GONADOTROPIC HORMONE OF PREGNANT MARES' SERUM\*

### ITS CLINICAL USE IN GYNECOLOGY

By GEORGE JOYCE HALL, M.D.  
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DISCUSSION by L. F. Hawkinson, M.D., Oakland; Sheldon A. Payne, M.D., Los Angeles.

THE announcement by Aschheim and Zondek,<sup>1</sup> in 1928, of the discovery of a gonadotropic substance in the blood and urine of pregnant women initiated an intensive search by other investigators for gonadotropic hormones in the body fluids of many species of animals.

In 1930 Cole and Hart,<sup>2</sup> of the University of California, reported, in the first of a series of papers, that the blood of the pregnant mare, between the 40th and 150th days of gestation, contained a hormone which they thought was similar to that found in human pregnancy urine.

Further papers in their series, as well as reports by numerous other investigators, notably Evans,<sup>3</sup> confirmed the presence of a gonadotropic hormone, but indicated that this equine gonadotropic hormone was in many respects different from the anterior pituitary-like sex hormone of human pregnancy urine.

### EQUINE GONADOTROPIC HORMONE

The equine gonadotropic hormone was shown to have a characteristic biological reaction similar to that of the anterior pituitary complex itself. Administration of proper dosage to infantile female rodents produced follicle growth, ovulation and corpora lutea in the manner and sequence found in adult females; in fact, young rats (twenty-eight days old) were bred three days following an injection and became pregnant.<sup>4</sup>

On the administration to ewes of sufficient amounts of the hormone at proper time intervals, Cole and Miller<sup>5</sup> found that estrum, ovulation, and impregnation would result, following breeding during the anestrus period. They also demonstrated that it would produce ovulation in the sow, mare, and other higher animals.

Gonadotropic hormone is found during pregnancy in the blood of the human female, the mare, zebra, giraffe, and some other primates.

The primary difference between the equine gonadotropic hormone and the chorionic hormone

\* Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.



TABLE 1.—Miscellaneous Data in 135 Cases

Menstrual Disturbances	No. of Cases	Duration of Disturbance	Duration of Treatment	Not Improved		Improved		Cured	
				No.	Per Cent	No.	Per Cent	No.	Per Cent
Amenorrhea, primary	4	Ages 21 to 25 years	Six months	1	25.0	2	50.0	1	25.0
Amenorrhea, secondary	6	Twelve to 24 months	Four to six months	0	0.0	2	33.3	4	66.7
Hypomenorrhea (under age 30)	37	Six months to ten years	Two to eight months	6	16.0	11	30.0	20	54.0
Hypomenorrhea (ages 30 to 40)	64	Six months to fifteen years	Two to eight months	6	9.3	24	37.3	34	53.1
Oligomenorrhea	33	Six months to three years	Two to eight months	5	15.1	10	30.3	18	54.5
Menometrorrhagia	16	Three months to three years	Two to six months	1	6.25	3	18.75	12	75.0
Dysmenorrhea	32	Six months to fifteen years	Two to eight months	2	6.25	8	25.0	22	68.75

from pregnancy urine becomes evident in their effects upon hypophysectomized animals: chorionic gonadotropic hormone has little, if any, effect on the gonads,<sup>6,7</sup> while the equine hormone restores complete normal functions in ovaries atrophied by hypophysectomy.<sup>8</sup>

#### CLINICAL STUDY

These various animal experiments indicated that this gonadotropic hormone might be valuable for clinical use. Purification of the hormone, to a degree that it would be unlikely to produce foreign protein reactions, made its clinical use in the human possible. The extent of the purification may best be illustrated by the fact that the hormone solution contains less than one half of one per cent of the amount of serum protein found in any previous commercial serum preparation.

The series herein reported consists of 135 patients. These have been divided into three groups: (1) menstrual disturbances; (2) genital hypoplasia; and (3) sterility. A number of patients necessarily fall into more than one group. For example, a patient whose primary complaint was sterility may also have had associated dysmenorrhea or hypomenorrhea; and one who complained of the subjective symptoms of estrogen deficiency might also have had genital hypoplasia, dysmenorrhea or oligomenorrhea.

#### DIAGNOSIS

The diagnosis in the majority of cases is evident after a careful history and physical examination. The vaginal smear method of Papanicolaou<sup>9</sup> is valuable in determining the degree of ovarian deficiency, and has been used in nearly all cases as a diagnostic aid, and to evaluate the results of therapy.

Endometrial biopsies have been obtained in the majority of patients. It is difficult to correlate menstrual disturbances with endometrial studies, and my findings agree with Kotz and Parker,<sup>10</sup> who conclude that there are no specific endometrial patterns for gynecological symptoms. However, a

study of the endometrium may be of value in determining the effects of treatment.

Sterility cases have been fully investigated. The examination included a tubal patency test, a basal metabolism rate determination, and an examination of the husband instituted before treatment.

#### DOSAGE

The rat unit, as suggested by the discoverers of the hormone, and described by Cole and Saunders,<sup>11</sup> is the amount which, ninety-six hours after a single injection, will cause the development of an average of three to ten follicles, or corpora lutea in a group of five, twenty-one to twenty-three-day old female rats.

It has been found that the ovarian weight, rather than the body weight of the animal is the criterion for determining comparative doses.<sup>12</sup> Ovulation is produced in the rat with one unit, the ewe with 125 units, and sow with 250 units, while 750 units are required for the cow and mare. These comparative weights suggested that 600 to 1000 rat units would be required to stimulate the ovary of the human female.

The majority of the patients in the series received 200 rat units (Cole and Saunders) of the equine gonadotropic hormone\* on the seventh, eighth, and ninth days following the onset of menstruation. The average length of treatment was four months.

Estrogenic hormone was administered to all patients with amenorrhea, hypomenorrhea, oligomenorrhea, genital hypoplasia, and to some of those with sterility, previous to the treatment with the equine gonadotropic hormone. Two to ten thousand rat units of estradiol benzoate (Progynon B) were administered every three to five days during the postmenstrual and intermenstrual phases over a period of one to two cycles, or until a normal vaginal smear was obtained.

The menstrual disturbances are outlined in Table 1. It will be noted that the largest group

\* "Gonadin" supplied through the courtesy of the Cutter Laboratories, Berkeley, California.

TABLE 2.—Data in Forty-three Cases of Sterility

Menstruation	No. of Cases	Duration of Sterility	Pregnancies	Per Cent
Apparently normal	14	3 to 7 years=4 cases 7 to 10 years=7 cases 10 to 17 years=3 cases	10	71.3
Dysmenorrhea	8	5 to 7 years=5 cases 7 to 9 years=3 cases	6	75
Hypomenorrhea	8	5 to 7 years=4 cases 7 to 10 years=3 cases 10 to 17 years=1 case	5	62.5
Oligomenorrhea	7	5 to 7 years=5 cases 7 to 10 years=2 cases	2	28.6
Menometrorrhagia	3	3 to 5 years=3 cases	1	33.3
Amenorrhea, secondary	2	5 years=2 cases	0	0
Amenorrhea, primary	1	6 years=1 case	0	0
Total cases .....	43	Total pregnancies .....	24	55.8%

comprised those with hypomenorrhea. These are divided into two age groups, and there was little difference in the response obtained. In the younger patients 54.0 per cent were cured, while in the older women 53.1 per cent were benefited.

Genital hypoplasia accompanied all cases of primary amenorrhea and one-third of those with secondary amenorrhea. Primary amenorrhea is not common, and in the four cases, whose ages ranged from twenty-one to twenty-five years, one was cured. Two were improved, but the oldest patient did not respond after six months of treatment. Of the six patients treated for secondary amenorrhea, four menstruated normally after four to six months of treatment and have maintained normal menstruation without further therapy. The two remaining patients menstruated following treatment, but have required continued treatment to maintain their cycles.

Menorrhagia and metrorrhagia are included under the term "menometrorrhagia." Where excessive bleeding is due to a persistent follicle, good results should be obtained with a hormone which is capable of follicle stimulation. Twelve women (75.0 per cent) responded to treatment by a decrease in the amount of menstrual flow to that which is commonly considered to be normal.

Regulation of the menstrual cycle was accomplished in eighteen (54.4 per cent) of the thirty-three women with irregular menstruation. These have all remained regular without further therapy during an observation period of from nine to fifteen months. Though they are menstruating regularly at the present time, the ten classified as improved have not been observed for a sufficient period to consider them permanently relieved.

Over 68 per cent of the dysmenorrheic women were relieved after the administration of equine gonadotropic hormone. It is not known at the present writing how long this relief will continue. However, twelve patients have been free from dysmenorrhea for as long as ten months without further treatment.

Seventeen patients had genital hypoplasia. Some had small external genitalia, narrow vaginas, and

uteri under normal size, while others seemed normal except for uterine hypoplasia. Three of the former group were not improved. Six (35.2 per cent) were improved, but had to remain under hormone treatment to maintain regular menstruation. Eight (47.0 per cent) are classified as cured because they developed normal genitalia, had normal menstrual periods, and maintained normal vaginal smears without further treatment.

Twenty-four (55.8 per cent) of the forty-three cases of sterility became pregnant after the administration of equine gonadotropic hormone. It is noteworthy that two of these had been sterile for more than fifteen years, and both conceived and carried to term. The remainder complained of sterility for from three to twelve years. Three of the twenty-four pregnancies were lost before full term: one at six months because of placenta praevia, one miscarriage at three months, and one abortion at nine weeks. There were no fetal malformations or stillbirths.

COMMENTS

Bowes,<sup>13</sup> in a preliminary clinical report, has shown that 80 per cent of his cases of amenorrhea have benefited by the administration of equine gonadotropic hormone. Davis and Koff<sup>14</sup> have reported the experimental production of ovulation in the human female by administration of this hormone.

The physiologic production of gonadotropic hormone of the anterior lobe of the pituitary gland is gradual over a period of a number of days, allowing adequate growth and maturation of the follicle. Therefore, it seems preferable to divide the total dose over a period of several days rather than to

TABLE 3.—Summary of Results

	Not Improved	Improved	Cured
Menstrual disturbances	11%	31%	58%
Genital hypoplasia	17%	35%	47%
Sterility			55.8%



administer one large dose. It is possible that a higher percentage of good results may be obtained by varying the dose according to the initial response. However, in this series the hormone was used in approximately the same dose, at the same period each month, in order to evaluate this method of administration.

Two to four months of treatment is the average amount commonly required. Some patients may be benefited after the initial course of therapy, but stimulation of the ovaries for only one cycle is usually insufficient for the maintenance of normal ovarian function. Therapy, therefore, should be continued even after menstruation seems to be normal.

Many of the improved patients have not maintained normal function longer than one or two periods and have required further treatment. Also, it is not known how long some of the patients classified as cured will continue to menstruate normally.

There are a number of patients who have shown no evidences of improvement, and when the ovaries of some of these were subsequently examined at operation, they were found to be small, white, and atretic. This type has not shown improvement with any form of treatment.

Although many of the premenopausal patients have responded with normal menstrual functions, it is apparently quite useless to expect satisfactory improvement in the nonfunctioning ovaries of women at the menopause.

The amount of menstrual bleeding is not an accurate criterion for evaluation of ovarian function. The woman who uses three pads per month and the one who uses three dozen are both manifestations of lowered ovarian function. Also, a woman may use twelve pads and menstruate four days, and yet show objective signs of ovarian hypofunction. The atrophic vaginal smear, an abnormal endometrial biopsy, underdeveloped breasts and genitalia, are all evidences of underfunction of the ovaries.

Two patients have had serum reactions. Both of these had urticaria at previous times, and both developed a mild generalized urticaria after three doses of equine gonadotropic hormone. An occasional local reaction at the site of injection was noted.

#### SUMMARY AND CONCLUSIONS

The historical and experimental data on equine gonadotropic hormone are briefly reviewed. The fundamental differences between equine gonadotropic hormone and the anterior pituitary-like sex hormone from pregnancy urine are noted.

In a series of 135 cases which received equine gonadotropic hormone, there were 57.6 per cent cures in patients with menstrual disturbances, 47.0 per cent of those with genital hypoplasia were cured, and 55.8 per cent who were treated for sterility became pregnant.

Equine gonadotropic hormone is sufficiently free from serum protein for use in the human, and is the most valuable gonadotropic hormone thus far

available for the treatment of menstrual disorders and functional sterility in the female.

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#### DISCUSSION

L. F. HAWKINSON, M. D. (445 Thirtieth Street, Oakland).—During the past twenty months I have used equine gonadotropic hormone in ninety-three cases of menstrual disturbances and sterility. The results, too often poor, with other gonadotropic preparations made me extremely skeptical about another new product. However, the fact that this hormone had been used with marked success in the veterinary field for a period of over four years offered some hope that it would stimulate the ovaries of a human female.

My results, on the whole, compare with those of Doctor Hall. In a group of thirty-one carefully selected sterility patients, 45.1 per cent became pregnant. How many of these women would have become pregnant without treatment is, of course, unknown. However, when a woman who has been sterile for five to fifteen years becomes pregnant following one to four series of injections of equine gonadotropic hormone, it hardly seems coincidental. Over 45 per cent of the dysmenorrheic women were relieved of pain. However, four, or 13.9 per cent, of those with dysmenorrhea reported that their pain became considerably worse following treatment. All of these were patients with uterine hypoplasia.

The administration of estrogenic hormone previous to the equine gonadotropic hormone seems to be indicated in many cases. One must remember that two problems are involved: the responsiveness of the ovaries to gonadotropic stimulation, and the receptiveness of the uterus to the ovarian hormones. Estrogen seems to increase the receptiveness and, thereby, allows the estrogenic and corpus luteum hormones to exert their effect on the endometrium.

In my opinion, patients with primary hypogonadism and uterine hypoplasia should first be treated with sufficient amounts of estrogenic hormone to increase the uterus to near normal size. This eliminates the possibility of causing ovarian damage by overstimulation.

Whether or not Davis and Koff were correct in their assumption that they produced ovulation in their patients, the fact remains that there is undeniable evidence that ovarian stimulation results from the injection of equine gonadotropic hormone. Definite symptoms of ovulation, control of excessive flow, increased flow in patients with

scanty menstruation, and a change in the premenstrual endometrium from an interval type to a secretory phase, are strong evidences that stimulation of the ovaries has been accomplished. Of course, one cannot expect to stimulate ovaries incapable of functioning.

My dosage has been somewhat larger than that used by Doctor Hall. The majority of patients received 200 Cole-Saunders units or 20 Cartland units, for five doses, beginning the fourth or fifth day after the onset of menstruation. The injections were given daily, or every other day, depending upon the length of the cycle. The last dose was given before ovulation is assumed to occur.

Skin tests have not been used prior to the administration of the hormone. The necessity of skin testing seemed to be obviated after demonstrating that rabbits, previously sensitized with injections of Gonadin, showed no evidences of serum protein reaction after injection of one cubic centimeter of Gonadin intravenously.

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SHELDON A. PAYNE, M.D. (921 Westwood Boulevard, Los Angeles).—We may rightly conclude from Doctor Hall's work that the gonadotropic hormone from the serum of pregnant mares is the most potent hormone of that kind available, and that some of the results may be spectacular. Also, in obtaining such unusually good results, it is apparent that Doctor Hall not only has had at his disposal a more potent endocrine preparation, but that his cases have been selected with considerable care. Only by careful discrimination can the results of such therapy be evaluated.

Before deciding on treatment it is only logical to attempt to determine the gland primarily at fault. Hormone assays and endometrial biopsies are valuable aids in diagnosis. In cases with ovarian failure, the endometrial biopsy is almost indispensable in evaluating treatment, since the ovarian activity is mirrored in the endometrial picture. The test for urinary pregnandiol is helpful in determining ovulation.

In the treatment of menstrual dysfunctions we have found it necessary, in many cases, to use more intensive therapy than reported here, hence many of our patients received 200 to 400 Cole-Saunders rat units three or four times a week for several weeks. This more intensive therapy seemed to be indicated, since, in many instances, the endometrial biopsies, while under treatment, showed an arrested estrin or persistent estrin effect, even though several were enjoying regular uterine bleeding. In some of these cases the endometrium later became secretory. Dysmenorrhea was commonly associated with the anovulatory cycles, disappearing when a secretory type of premenstrual endometrium became established. It is coming to be recognized more and more that anovulatory cycles are very common in young girls as the menstrual cycles are becoming established, and we feel that this process may be reproduced by treatment. Some patients respond very quickly to the mare's serum hormone, the endometrium changing from an atrophic, persistent estrin, etc., to a secretory type during the first menstrual cycle.

Many of Doctor Hall's patients received considerable estrogenic treatment the month or two before gonadotropic hormone was given. Since estrogenic substances alone have been used in such cases with some degree of success, one might question, in evaluating the results, what rôle the estrogenic substance had played?

There is no doubt that the mare's serum hormone is a potent ovarian stimulant. It offers new hope in the treatment of genital hypoplasia, in the treatment of menstrual disturbances, and particularly in the treatment of sterility due to failure of ovulation. However, our enthusiasm should be tempered by our experience with other gonadotropic hormones, which have come with great promises from the experimental laboratories, but have fallen under expectations when put to the clinical test. There is still much experimental work to be done, and the method of administration, the dosage and dosage intervals, etc., are yet to be determined.

## SULFANILAMIDE AND SULFAPYRIDIN IN THE TREATMENT OF VARIOUS INFECTIONS\*

### FACTORS INFLUENCING PROGNOSIS IN PNEUMONIA

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#### PART II†

IN appraising the results of sulfanilamide and sulfapyridin therapy, it is well to remember the various factors concerned in the prognosis of pneumococcic pneumonia. There are so many variables that are operative in this disease that it is exceedingly difficult, on a basis of gross fatality statistics, to be certain that any form of treatment influences either the course of the disease or the fatality rate even when large numbers of cases are studied. One should include all cases in any study, and then break down the statistics and explain the deaths rather than exclude certain cases at the outset. If one singles out and analyzes various factors in treated cases, and compares the results in cases presenting comparable features without treatment, then certain opinions can be developed concerning the value of any form of treatment. In any case, it is necessary to correlate the variables and determine whether or not the particular form of treatment has reduced the fatality rate or altered the course of the disease in a significant number of cases before one can be certain that the particular form of treatment has been responsible for any difference.

In assessing any group of cases of pneumonia, then, it is necessary to take into account the following factors, which are known to influence both the fatality rate and the duration of the illness. They are listed in Table 2.

TABLE 2.—*Significant Prognostic Factors in Pneumonia*

1. Age
2. Bacteremia
3. Type of pneumococcus and their relative frequency in any group
4. Race and type of work
5. Number of lobes involved
6. Leukocyte count
7. Focal infections
8. Debilitating diseases
9. Mixed infections
10. Pregnancy
11. Alcoholism
12. Miscellaneous features
  - a. Degree of cyanosis
  - b. Delirium
  - c. Abdominal distention
  - d. Jaundice
  - e. Pulmonary edema

Of all the factors listed in the table, the three most important are (1) the age of the patient, (2) bacteremia, and (3) the type of infecting

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† Part I of this paper appeared in the August issue of CALIFORNIA AND WESTERN MEDICINE, on page 81; discussion comment on "Results of Treatment of Pneumonia with Sulfapyridin," in the same issue, on page 143.



TABLE 3

	Total Cases	Total Number of Cases		Per Cent Bacteremia	Per Cent Fatality
		Under 40	Over 40		
Clinic A	1,456	1,003	453	17.0	19.0
Clinic B	1,879	1,052	827	19.0	28.3
Clinic C	1,586	678	908	36.7	46.2

pneumococcus. The other factors are significant, but in many cases they are only accompanying features. In analyzing gross fatality rates in treated and untreated patients, it is absolutely essential to know about all of the above factors and, in particular, the three just mentioned. Analyses of cases as presented by Finland, Bullowa, Cecil, Robertson, Cole, Cohn, and their associates, and many others, serve to stress this point. When the fatality rates, which are reported by different observers, are compared on a basis of the above phases, it is possible in most instances to reconcile the wide divergences in death rates that are often reported. Inasmuch as the afore-mentioned factors often influence the outcome of the disease, they require comment.

**Bacteremia.**—The important points to remember about bacteremia in pneumonia are as follows:

It increases in frequency with advancing age, so that it is about three times as frequent over the age of 40 as under 40.

It is always of serious importance regardless of the day of the illness on which it is detected, since the fatality rate is three to four times as high in bacteremic patients as it is in those without bacteremia.

While it is always of serious prognostic importance, regardless of age, more patients recover with bacteremia under 40 than over 40 years of age.

It is found most often in patients with Types II, V, and I (20 to 40 per cent) and less often in Types III, VII, and VIII. The highest fatality rates with bacteremia are encountered in Types III, VII, V, I, II, and VIII, respectively.

It is encountered more often when there are multiple lobes involved, leukopenia, severe abdominal distention, deep cyanosis, delirium, and pulmonary edema, than it is without these features.

At the Boston City Hospital the incidence of bacteremia is approximately 36 per cent of all cases. In other large series of cases it is lower (17 to 20 per cent). This must be taken into account in assessing fatality statistics from various clinics.

The fatality rate in bacteremic cases varies from 25 to 100 per cent, depending upon age, and from 50 to 98 per cent, depending upon type.

Bacteremia is always more serious when accompanying bronchopneumonia than it is in lobar pneumonia.

The incidence of bacteremia is higher in patients with preëxisting systemic diseases.

Bacteremia is at least twice as frequent in patients who develop postpneumonic focal complications as it is in a nonbacteremic group.

Bacteremia is less frequent in patients who are treated with serum than in those who do not receive serum treatment.

In general, it can be said that, of the bacteremic patients recovering without treatment, the number

of colonies of pneumococci in the blood is less than 10 per cubic centimeter. If the number of colonies increases in successive blood cultures, or if the blood culture is positive more than once, the prognosis is worse than if there is a single positive blood culture with a small number of organisms.

While the fatality rate increases with advancing age in the nonbacteremic cases as well as the bacteremic cases, it rises much more abruptly after the age of 50 years. Under 50 years, it is approximately 15 per cent; over 50 years it is about 55 per cent.

In brief, one can say from the experience with large numbers of cases of pneumonia that, regardless of the treatment employed, *the lowest fatality rates will be found in patients without bacteremia, and especially in individuals without bacteremia who are under forty years of age.*

**Age.**—Of the highest importance in the prognosis of pneumonia is the age of the patient. By common consent, the greatest number of deaths from pneumococcic pneumonia occur over the age of 40 years, and the death rate definitely increases with age. The lowest death rate is observed between the ages of 2 and 11 years, but from then on it increases from about 8 to 85 per cent from the ages of 12 to over 70. The reasons for the increase in the death rate with advancing age are numerous and not completely understood, but the following are significant: (1) a higher incidence of bacteremia and (2) the presence of other diseases. While the peak incidence of pneumonia is often found to be from 20 to 50 years, in our cases at the Boston City Hospital it is from 30 to 60 years. Whenever the incidence of pneumonia is higher in individuals over 40 years than under 40, both the bacteremic incidence and the fatality rate will be higher. In order to compare fatality rates in different clinics, it is necessary to compare both the ages and the bacteremic rates. For example, Table 3 is instructive.

This table shows that the highest fatality rate occurred in the clinic with the highest bacteremic rate, and the greatest number of patients over 40 years of age, and the lowest fatality rate was reported from the clinic with the lowest incidence of bacteremic cases and the highest percentage of cases under 40 years of age. This table seems to emphasize the importance of taking into account both the bacteremic incidence and the age distribution of any large group of cases, when fatality rates and results of treatment are compared.

**Type of Pneumococcus.**—The type of infecting pneumococcus has long been regarded as important in affecting the outcome of the disease, and its significance cannot be ignored. Part of the variations in the severity of the disease produced by different

TABLE 4.—Results of Serum Treatment at Boston City Hospital\*

	Fatality Rates in Different Types Per Cent					
	I	II	III	V	VII	VIII
Bacteremic: No serum	70	(76)† 86	94	79	88	
Bacteremic: Serum	25	(44) 35	81	21	38	
Nonbacteremic: No serum	25	(20) 11	38	15	16	
Nonbacteremic: Serum	8	(10) 8	24	4	5	
All cases: No serum	44	(42) 36	47	38	29	25
All cases: Serum	19	(24) 19	43‡	8§	12¶	10
Per cent of total cases showing bacteremia	35	45	23	43	20	

\* These results have been summarized from the papers of Finland and his associates at the Boston City Hospital (16, 17, 18).

† Figures in parenthesis indicate fatality rates in a ten-year period.

‡ Results of 1 year—1937-1938.

§ Results of 3 years—1935-1938.

¶ Results of 5 years—1933-1938.

types of pneumococci would seem to be dependent upon the age at which the patient is infected with a particular type of pneumococcus, and the variation in the capacity of the organism to invade the circulating blood. Of the common types, the fatality rate is highest in order of frequency in Types III, II, V, I, VIII, and VII. This corresponds roughly with the bacteremic incidence with all types excepting Type III. It has been maintained that one of the reasons why Type III is so serious a disease is that it occurs predominately in elderly people. This is true in part, but from the experience of Finland and Sutliff,<sup>13</sup> the fatality rate in Type III pneumonia has always been higher than with any other type, regardless of the age of the patient and the incidence of bacteremia. The next most serious type is Type II, since it is accompanied by a high fatality rate, especially in patients over 40 years of age.

In summary, then, it can be said that the type of infecting pneumococcus is significant in prognosis, in particular Types II, V, and III, and this is so even when the incidence of bacteremia and age are considered.

**Number of Lobes.**—The number of lobes involved indicate the severity and extent of the infections, so that the fatality rate rises with the increase in the number of lobes involved.

**Pregnancy.**—Finland and Dublin<sup>14</sup> have shown recently that pneumonia occurring in the pregnant woman has about twice the fatality rate of the same disease in the nonpregnant woman.

**Leukocyte Count.**—The leukocyte count in itself may not be of aid in prognosis; but, speaking broadly, it can be said that patients with leukopenia have a higher fatality rate than individuals with a moderate leukocytosis.

**Alcoholism.**—Individuals who use large amounts of alcohol have a higher risk rate than those using moderate amounts, or the teetotalers. On this point there is general agreement.

**Race and Type of Work.**—These two factors are operative and are especially significant in the case of the colored race and of the person whose

occupation is that of heavy manual labor. That is to say, the colored man and the laborer have a poorer chance of recovery than the white individual who is not a laboring person.

**Focal and Mixed Infections.**—Individuals with focal infections, such as empyema, and infections due to more than one type of pneumococcus or another organism have a higher fatality rate than those with a single infection or without a complicating focal infection.

**Debilitating Diseases.**—When patients with cardiovascular, renal, or hepatic disease develop pneumonia, it is always a serious matter. Cohn and Lewis<sup>15</sup> have demonstrated the fact that the fatality rate is always higher regardless of age.

To sum up, then, it is evident that the following factors may be considered unfavorable in assessing prognosis in pneumonia: Age over 40 years, bacteremia, infection with Types II, V, or III, involvement of multiple lobes, type of work, overindulgence in alcohol, cardiovascular disease, and the presence of focal infections. The more "untoward" factors that are present, the more serious the disease and the poorer the outlook. To repeat, then, the most important are the age and the incidence of bacteremia.

#### SERUM TREATMENT IN PNEUMONIA

No discussion of sulfapyridin treatment of pneumonia would be complete without the inclusion of some statement concerning the value of specific serum treatment, so that one may have some basis for comparing results. As more and more experience has accumulated over the past twenty-five years, we are now in a position to say something about the treatment of some types of pneumonia with specific sera. This is especially true of Type I, but information is now available for a statement concerning Types II, V, VII, and VIII, as well.

The following statements concerning the value of Type I antipneumococcal serum are justified. It reduces the fatality rate, shortens the course of the disease, prevents a spread of the infection, and greatly reduces the incidence of empyema and other



focal infections. In order to obtain the best results it is necessary to treat the patients early, that is, before the fourth day of the disease; and to use large amounts of potent serum which will produce either no reaction or, at best, only minimal thermal reactions. When patients are treated with specific serum after the fourth day of the illness, or with serums of low potency, then the results will be poorer, especially when the serum causes reactions and is not given in adequate amounts.

The most striking results are obtained in patients under 40 years of age, without bacteremia and with only a single lobe involved, who are treated before the fourth day of their illness. The fatality rate can be reduced at least 66 per cent in all nonbacteremic cases, and at least 50 per cent of the bacteremic cases with the proper use of serum. In certain groups of cases the fatality rate can be reduced to between 1 and 3 per cent with the use of Type I serum.

In Type II cases, the results of serum treatment have varied in different clinics, and from one year to another. This has been found to be due to the use of varying amounts of serum and to the lack of serum of uniformly high potency. Moreover, it is known that the fatality rate of Type II infections is often very high, and that this organism tends to invade the blood much more often than do other types of pneumococci. Within recent years it has been possible, by using potent rabbit and horse serums in large amounts, to reduce that fatality rate in patients with Type II pneumonia. Here again, the best results are obtained in nonbacteremic patients under 40 years of age, with a single lobe, who are treated before the fourth day of their illness. Less striking results are obtained in patients over 40 years of age, especially when there is bacteremia.

What has been said for Types I and II also applies to Types V, VII, and VIII. The results of serum treatment of other types are too limited to say just what their effect will be in the future, although the results so far indicate that they can be influenced in a favorable sense.

Table 4 summarizes some of the results of serum treatment at the Boston City Hospital, as compiled by Finland and his associates.

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Boston City Hospital.

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### URINARY TRACT INFECTIONS IN THE NEWBORN\*

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DISCUSSION by Elmer Belt, M. D., Los Angeles; Phillip E. Rothman, M. D., Los Angeles.

ALTHOUGH the subject of urinary tract infections in children has been exhaustively reviewed in pediatric literature, similar infections occurring in newborns have received scant attention. Various authors<sup>1-12</sup> have reported small series of cases (Table 1); and these reports may be briefly summarized as follows: the occurrence of urinary tract infections ("pyelitis") in the newborn is not rare. The symptoms may appear a few hours or a few days after birth. There is always fever, but this may not be high. Gastro-intestinal symptoms are most always present, but symptoms referable to the urinary tract are usually absent. The higher percentage of cases occur in males (see Table 1). Hematogenous infection (septicemia) is suspected, but not proved. The prognosis is good, most of the patients recovering with routine medical care. There were, however, five deaths in the above reported series. Runge's<sup>5</sup> case showed, at autopsy, severe bilateral pyelonephritis, with small abscesses in the kidneys and dilatation of the pelves and ureters with cystitis. One of Sauer's<sup>8</sup> patients died at the age of seven weeks and showed congenital stenosis of the right ureter with multiple abscesses of the right kidney.

#### REPORTS IN THE LITERATURE

It is striking that, in reviewing the reported series, no emphasis was placed on the importance of congenital obstructive lesions as etiologic factors in the neonatal pyurias, and none of the authors recorded urinary tract studies (pyelography) in an attempt to discover the presence or absence of such obstructive lesions. The recovered patients were followed over very brief periods of time, usually a few days. It is entirely probable that in many of these cases the pyuria recurred later in life, and that obstructive lesions with subsequent hydro-nephrosis and hydro-ureters with chronic recurring pyuria occurred and were overlooked.

#### INCIDENCE

Urinary tract infections in the newborn are undoubtedly far more frequent than the reported cases would lead one to believe. Campbell<sup>12</sup> states that, of 961 infants and children admitted to the hospital with urinary infections, fifty-seven, or 6 per cent, were under three months of age, and of these eighteen were classed as "chronic." Un-

\*Read before the Pediatric Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9-12, 1938.

TABLE 1.—*Urinary Tract Infections in Children. Summary of Reports in the Literature.*

Author	Year	No. Cases	Males	Females	Age at Onset Days	Result
Kavalesky and Moro 1	1901	2				One died, eleventh day, <i>B. coli</i> septicemia.
Smith 2	1918	2	Not stated		2 to 14	Recovery.
Helmholz 3	1918	3	3		2 to 10	Recovery.
Hornung 4	1921	1		1	3	Died later of diphtheria.
Runge 5	1923	1	1		10	Died age twenty days bilateral pyelonephritis with abscesses. Marked bilateral dilatation of both pelves and ureters.
Finklestein 6	1924	3		3	2 to 3	Recovery.
Graham 7	1925	6	3	3	12 hours to 3 days	Five recovery. One death fourth day, no autopsy.
Sauer 8	1925	12	11	1	6 to 28	Ten recovered. Two died—one aged two weeks. Congenital stenosis right ureter, multiple abscesses of right kidney.
Conrad 9	1926	3		3	1 to 3	Recovery.
Patterson 10	1931	2	2		29 to 31	Recovery.
Litchfield and Gillman 11	1932	1	1		3	Recovery.

doubtedly, many cases have been reported in series dealing with pyelitis in general. Bigler<sup>13</sup> states that, in eighty-five children with anomalies of the urinary tract, the lesion was congenital in sixty-nine; thirty-two of the eighty-five had pyuria, and pyuria was present in half of the fifty-two cases with obstruction. Bigler<sup>14</sup> also reviewed the subject of congenital anomalies of the urinary tract. Their frequency is indicated by the fact that in a series of 153 consecutive necropsies on children covering a period of eleven months, anomalies of the urinary tract were present in 13 per cent, and all of these could be explained on a congenital basis. Campbell<sup>12</sup> states that urinary infection in the newborn is not uncommon, but is seldom recognized because of failure to consider it in the differential diagnosis and failure to examine the urine. He further states that many cases seen at several weeks or months of age undoubtedly began in the first few days of life, but the condition was not recognized.

#### CASES UNDER OBSERVATION

It has been my privilege in the past ten years to observe three cases of pyuria occurring in the first few days of life. All of these cases received careful cystoscopic studies. One, a female, showed congenital stenosis with dilatation of one ureter. This child was observed over a period of ten years. The third, a boy, had a congenital median-bar obstruction of the neck of the bladder which was treated surgically. This infant is well at the age of twelve months. The protocols of these cases follow:

#### REPORT OF CASES

CASE 1.—Female, born on July 5, 1928. The birth weight was seven pounds five ounces. The patient was the second child and was normal at birth. On the second day the temperature was 100 degrees rectal, and on the tenth day 102 degrees rectal, reaching 105 degrees rectal on the sixteenth day. On the sixth day the baby developed vomiting, with listlessness and failure to take food. Catheterized urine was obtained on the eleventh day and showed numerous pus cells and, on culture, *B. coli*. The blood count on

the eleventh day was as follows: Hemoglobin, 94 per cent; red blood cells, 5,576,000; white blood cells, 17,600; polymorphonuclears, 58.5 per cent; lymphocytes, 40.5 per cent; monocytes, 1 per cent. Three examinations of the urine showed pus. Cystoscopy was done on July 18, 1928, the thirteenth day, by Dr. Elmer Belt. This showed extensive cystitis. The right ureter was readily catheterized with a No. 5 whistle-tip catheter, but an olivary-tip catheter reinforced with wire was necessary to penetrate the left ureteral orifice. The catheter, after passing this point, readily passed to the renal pelvis, and a rapid flow of thick urine was obtained. The urine from bladder and both kidneys showed pus cells and Gram-negative bacilli which, on culture, was *B. coli*. Pyelograms: The left pelvis filled only partially, but suggested a dilated renal pelvis. The right was normal. On the fifteenth day the baby was toxic with high temperature and poor color, and was transfused 105 cubic centimeters of whole blood. Following this the baby improved, but the temperature continued. A second cystoscopy was performed on August 2, 1928, at the age of twenty-eight days. The bladder was inflamed, but not covered with fibrous exudate as formerly. Both ureteral orifices were readily seen. The right was catheterized with a No. 4 ureteral catheter and gently lavaged with one-half per cent silver nitrate. An attempt was made to catheterize the left ureter, but this could not be passed more than one-half centimeter. On August 7, 1928, a third cystoscopy was done. A No. 4 catheter was inserted 7 centimeters up the left ureter and a scant flow of cloudy urine was obtained. The baby's general condition improved and the temperature subsided. She was discharged on August 11, 1928, at the age of one month and six days, weighing seven pounds twelve ounces. Subsequent cystoscopic examination was done on August 14, 1928, which showed improvement, and the left ureter could be passed without difficulty. The baby has been seen at frequent intervals from this time, having been last examined on January 22, 1938, with no recurrence of the pyuria over a period of ten years.

CASE 2.—Female, first pregnancy, born on November 22, 1928. The birth weight was eight pounds ten ounces. The patient was seen on day of birth, at which time there was noted cyanosis with jerky, rapid respirations without signs of trachial obstruction. An x-ray of the chest showed a broad thymus shadow, with the heart normal and the lungs expanded. X-ray treatment was given the same day. The baby's color improved, she appeared normal the following day and remained so until December 3, 1928, at the age of eleven days, when she developed a temperature of 103 degrees rectal. There were no physical findings of importance. The urine, December 5, 1928, showed a heavy trace



of albumen and numerous pus cells, and on culture showed *B. coli*. Blood count on December 5, 1928: Hemoglobin, 106 per cent; red blood count, 5,750,000; white blood count, 14,800; of which polymorphonuclears, 57 per cent; lymphocytes, 39.5 per cent; monocytes, 3.5 per cent. The baby continued to run fever. A cystoscopic examination was done by Dr. Elmer Belt on December 15, 1928. The bladder was reported deep red in color and covered with a general sprinkling of flaky pus. The ureteral orifices were edematous, but were readily entered. Catheters were passed to 10 centimeters on each side, when a small flow of urine occurred and specimens were obtained from each side. No pyelogram was made. Cultures from the left kidney and bladder urine grew *B. coli*. The right kidney culture was sterile. Subsequent cystoscopic examinations showed a general clearing of the infection without hydronephrosis. The last examination was made on May 9, 1929. The baby has not been seen since February 18, 1930. At that time the urine was normal, and she is reported to be in good health at the present time.

CASE 3.—Male infant, born on April 27, 1937; third pregnancy; the first two (males) having been normal. The mother had pyelitis during both former pregnancies, but not with this one. The birth weight was nine pounds one ounce. The baby was normal at birth, but on the fourth day developed temperature 103 degrees rectal, and ran a fever from the fourth to the tenth day, reaching 104 degrees rectal. The patient was seen by me on May 5, 1937, at the age of eight days. The baby was restless and feverish, and diarrhea was present. The throat and ear drums were slightly red. Blood count on May 7, 1937: Hemoglobin, 124 per cent; red blood count, 6,750,000; white blood count, 19,300; polymorphonuclears, 70.5 per cent; eosinophils, 6 per cent; lymphocytes, 8.5 per cent; monocytes, 14.5 per cent. The voided urine showed albumin and innumerable pus cells; no red cells or casts. The catheterized urine showed *B. coli*. The baby became toxic and dehydrated( and on May 11, 1937, an intravenous drip was started with five per cent glucose, to be discontinued on May 13, 1937. The white count rose to 34,000, with 65 per cent polymorphonuclears. Elixir mandelate was given, one-third teaspoon three times daily; but this was discontinued on account of vomiting. The blood nonprotein nitrogen on May 12, 1937, was 58 milligrams per cent. A cystoscopic examination was done by Dr. Elmer Belt on May 20, 1937. The bladder mucosa was very red and injected. Both ureters were readily entered, and pyelograms showed a beginning dilatation of both pelves and ureters. The baby improved and the temperature became normal. He was discharged from the hospital on May 23, 1937. On June 3, 1937, he weighed ten pounds four ounces and was in good condition, but the urine contained pus. Sulfanilamide was given, beginning on June 18, 1937, five grains daily for three days, and two and one-half grains daily for three days. The urine cleared and contained no pus or bacteria. On July 29, 1937, the baby appeared fretful, and examination of the urine again showed pus and bacteria. Sulfanilamide was repeated as before, and the pus disappeared from the urine. A cystoscopic examination was again performed by Dr. Elmer Belt on October 4, 1937. Examination at this time showed a definite congenital median-bar obstruction of the neck of the bladder. Ten days later a deep incision was made through this bar at the bladder neck with a high frequency knife, without hemorrhage. The baby suffered no ill effects from this operation, and the urine has been normal since this time. The baby was last seen on April 15, 1938, age one year. He was normal in every respect. The urine was negative.\*

#### COMMENT

Such a small series of cases permits of no conclusions. It is entirely possible that the next three cases may fail to show congenital obstructive lesions. It would seem obvious, however, that such lesions should be searched for. The dangers incident to retrograde pyelography in the newborn are negligible if done by a skilled operator. The

dangers of subsequent damage to the kidneys and urinary tract secondary to chronic obstruction, plus recurring or chronic infection, are very great. Many of the cases of hydronephrosis with hydro-ureters seen in infants and children date their symptoms from birth or very early infancy. Treatment in these advanced cases is usually futile even in skilled hands. Prevention of the damage by early recognition of the condition and relief of the obstruction before permanent and irreparable damage has been done, is the duty of the pediatrician following the case.

Many pediatricians, for some reason, are opposed to urologic studies in young infants. They allow infants to go through successive attacks of pyuria, each one "successfully" treated by medical therapy. This may be methenamin, alkaline therapy, ketogenic diet, mandelic acid or sulfanilamide, etc. The danger from such treatment in cases having organic congenital obstruction consists in the temporary abatement of the pyuria and in the masking of the underlying obstruction. In Case 3, cited above, the urine cleared on three successive times after administration of sulfanilamide, and could have been reported as a medical cure had it not been for the follow-up. Not all cases of pyuria in infancy are secondary to congenital obstruction, and in not all cases is urologic study indicated. Obstructive lesions may be suspected in cases of pyuria occurring in the newborn period, in males at any age, and in recurring pyuria at any age in either sex. It is only by keeping this in mind and by following infants showing urinary tract infections over a considerable period after medical "cures," that the congenital obstructive lesions may be discovered.

#### IN CONCLUSION

1. Three cases of pyuria occurring in the newborn period are reported. Two were females, one male.
2. Two of these three cases on urologic study showed congenital obstructive lesions. Treatment by removing the obstruction resulted in the patients' recovery.
3. Pyelography and cystoscopy can be safely performed in newborn infants.
4. Treatment by medical means may result in temporary abatement of the pyuria and masking of the underlying congenital obstruction.

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#### DISCUSSION

ELMER BELT, M.D. (1893 Wilshire Boulevard, Los Angeles).—If one looks upon the urinary tract purely as a problem in plumbing, Doctor Happ has shown the necessity of revealing possible defects in the mechanism of transmission of the urine through it, defects which cannot be helped by drugs. The normally narrow areas at the ureteropelvic juncture and at the ureterovesical juncture may be further constricted by anomalies, scar or edema. Even in tiny babies the means is at hand of discovering these defects. Instruments are now available with which the urinary tract of the smallest baby may be visualized. Where the secretory power is still strong, diodrast may be injected subcutaneously and will reveal the infant urinary tract just as clearly as it does in the adult. When mechanical obstructions are found, the ureteral catheter can be used as an efficient means of relief and correction of the defect.

Again, due to his power of close observation, Doctor Happ has brought us a group of cases of a kind very rarely seen. There is nothing about the infant mechanism which would protect it from pyelitis. The factors which bring about this condition later in life must operate here with equal frequency. Indeed obstructive anomalies in the urinary tract should be apparent early in life, if we but have eyes to see their signs.

Doctor Happ has clearly outlined the method of combating urinary infection in these tiny patients. The mechanics of edema due to inflammation, narrowing further the normally narrow places in the tract, plus further obstruction from clogging due to particulate matter by epithelium, pus and bacterial bodies settling into these funnel-like narrowings, are dealt with concisely. There is no fundamental difference in type between the treatment afforded the babe and the adult. Fluids are forced to thin down the urinary stream, making less possible clogging from debris. Alkalies help relieve edema. Various urinary antiseptics are used. Mandelic acid and ammonium chlorid, when they are tolerated and when the kidney function is good enough to secrete them, are singularly effective in the colon group of organisms, and possibly the only antiseptic substance capable of destroying the *bacillus fecalis*. Sulfanilamide, the exceptionally ubiquitous urinary antiseptic, is effective wherever the plasma flows. It seems to strike both sides of the secreting mechanism, acting through the urine and through the plasma. It is effective even where the secretory power is poor, and ineffective only in combating *streptococcus fecalis* and *streptococcus viridans*. However, it is but weakly effective against the *staphylococcus albus*.



PHILLIP E. ROTHMAN, M.D. (3875 Wilshire Boulevard, Los Angeles).—Pyuria in infancy has always created clinical interest because of our lack of knowledge relative to the mode of infection and the character of the lesion. This is due to the paucity of pathological observations. Accordingly, greater advances have been made in diagnosis and treatment. The younger the patient, the more likelihood that an abnormality of the urinary tract exists, and this is particularly true in the newly born. Gastrointestinal symptoms, with vomiting and signs of pylorospasm, are common manifestations. Marked pallor without anemia is often observed. Sudden dehydration, without apparent explanation, is an alarming complication. The successful treatment by a skilled urologist is an impressive technical achievement that would have appeared almost incredible to the first generation of pediatricians.

Doctor Happ has emphasized what undoubtedly remains the most important phase of the entire subject, namely, the danger of permanent renal damage in cases that remain imperfectly treated. Medication may so completely mask the picture that the patient appears in excellent health, afebrile and asymptomatic, during the period of kidney destruction. The renal parenchyma may be destroyed either from compression in the presence of an organic obstruction, or as the result of infection. It is this latter group that may produce, after a lapse of years, the picture of chronic nephritis. The insidiousness of its development should be a constant warning to repeat urine examinations of all patients who have had a previous attack of pyuria, and, if infection persists, to demand a urologic study.

## THE LURE OF MEDICAL HISTORY†

### THE MICROPHONE, STETHOSCOPE, TELEPHONE, AND ARTIFICIAL AIDS TO HEARING

#### THEIR HISTORICAL RELATIONSHIP

By G. R. OWEN, M.D.  
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A CERTAIN local otologist, who has done much experimental work with the audiometer, ascribed the first use of the word "microphone" to Bell and his contemporaries; and in its practical consideration he was correct. He was interested to know of its use two and one-quarter centuries ago, and asked that we write him in detail, which we did much as follows:

I have devised an instrument suitable for magnifying weak sounds which is called a microphone; the microphone in its present form consists simply of a lozenge-shaped piece of gas-carbon one inch long. . . .

Thus, David Edward Hughes, the English-American inventor, in 1878, to whom is credited the first use of the word, defines it. (The use of the carbon element is credited to Bell with a two-year priority.)

The telephone seems to have been born twin to the carbon microphone, so a brief interpolation as to its history may not be amiss. Dr. W. A. Dewey, a globe trotter with a penchant for the acquisition of scientific curiosia, writes me as follows:

There is a fine tablet displayed on the post-office in Florence which reads, "Antonio Meucci, inventore del telephone, mori 1889 in paese straniero povero e defraudato de suoi diretti." Professor Passani assured the writer personally that this statement is correct. The Minister of Finance in France in 1890 conceded that M. Charles Étienne Bourseul really invented the telephone in 1854, for which he received the Legion d'Honneur. . . . The writer recalls being shown in Vienna some forty years ago, in an old German encyclopedia, a cut of an apparatus describing a "fern-sprecher" that dated a century or more ago. The old Herr Professor who produced this evidence did so to dispute my boastful claims that it was an American who invented the telephone.

The mammoth Oxford dictionary traces the word back to the "Philosophical Transactions," 1727, thus:

Microphones or miraculous sticks . . . that is, magnifying ear instruments.

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.



We have been unable to find the word in any dictionary prior to 1706, where Phillips defines it:

Microcousticks or microphones; instruments contrived to magnify small sounds, as microscopes do small objects.

One concludes that this new word was without great interest or significance, for even Johnson ignores it in his sixth edition, and it does not appear again until 1827, when Sir Charles Wheatstone, the English physicist, claimed paternity.

Three instruments for the magnification of sound were submitted to the Royal Society between 1665-1681. One wonders if there is some connection between "microcousticks" and "miraculous sticks"; a sort of corruption of a Hellenism into the vernacular, or were the devices submitted of a stick form. The latter, probably, for we recall that René Laennec, the inventor of the stethoscope (1819), when confronted with a very obese female patient, and finding the ear-to-skin method neither esthetic nor adequate, said: "I happened to recall a simple and well-known fact in acoustics and fancied it might be turned to some use on this occasion. The fact I allude to is the distinctness with which we hear the scratch of a pin on one end of a piece of wood on applying our ear to the other."

It is a far cry from the ubiquitous broadcasting "mike" which alternately titillates and torments us, to the primitive stethoscope; yet the definition, "instruments contrived to magnify sound," of 225 years ago, is as aptly applicable to the latter as to the former. They were, indeed, classified and indexed under "Artificial Aids to Hearing," by the Royal Society of the seventeenth century.

That irritable, disputatious, versatile and scientifically admirable Robert Hooke (1635-1702), Curator of the Royal Society, has given us a very definite picture of the possibilities of sound transmission and magnification by means of his otocousticons, two of the three "artificial aids" previously mentioned; a son of that century, acclaimed as the century of the birth of experimental science wherein we may contrast such an absurdity as Digby's "Sympathetic Powder" with William Harvey's revolutionary "De Motu Cordis." We find Harvey following Willis in the famous case of Lady Conway only to be supplanted by Greatrakes, the notorious Irish Stroker, a magnificent quack. It was the age of Kepler, Newton, and Galileo, yet we know that in the realm of physics it was forbidden to deviate from the principles of Aristotle, and this prevailed one hundred years after the experiments of Galileo, who had been forced to renounce many of his contradictions as heresies. The Parisian universities were adamant, and "Stubbeites" in England belliose. Into this era of credulity and bigotry was born the great Royal Society at old Gresham, with its Harveian doctrine of "observation, hypothesis, deduction and experiment."

Exhaustive experimental studies were made of sound and acoustics in that century, and it would be strange indeed if much attention had not been given to the transmission of sound over long distances, a crying need centuries before Alexander

had summoned his troops by means of enormous horns of bronze. And so there was, and the consideration of the history of telephonics injects itself into our potpourri title. Hark to Hooke!

'Tis not impossible to hear a whisper a furlongs distance, it having been already done; and perhaps the nature of the thing would not make it more impossible, though the furlong should be ten times multiply'd. It has not been yet thoroughly examin'd, how far the Otocousticons may be improv'd, nor what other ways there may be of quickening our hearing, or conveying sound through other bodies than the Air: for that is not the only medium, I can assure the Reader, that I have by help of a distended wire, propagated the sound to a very considerable distance in an instant, or with as seemingly as quick a motion as that of light, at least, incomparably swifter than that, which was at the same time propagated through the Air; and this not only in a straight line, or direct, but in one bended in many angles.

The earliest practical application of sound magnification appliances to the aid of the deaf is found in the "Phonurgia Nova" of Athanasius Kirschner, the Jesuit, published in 1673, which described many modifications of an elliptical double-ended tube, one of which Banzer had used in 1640, and to which he had added a diaphragm of pig's bladder on the receptor end; very possibly the inspiration of the "artificial tympanum" of Hooke's otocousticon. These primitive conceptions, as well as the equally primitive trumpet, have persisted in many of our present forms. Magnetism was the only electrical modality known in his day, so as Halsey Fredericks of the Bell Laboratories states, electrical amplification could not have been a factor. Hence, Hooke's devices could have made no radical departure from the then accepted forms. The "miraculous stick" used by Laennec had long been adapted to both air and bone conduction, though not as a stethoscope. An early and interesting form of the bone-conduction type was the double-end tube—an end each for the teeth of the speaker and the listener, much as the famous Paladino rod transmits from the larynx of the speaker to the cranial bones of the subject. This principle exists today in the Japanese otocoustic fan, which utilizes a dental contact.

The length of a chord required to the pitch; the laws of vibrating chords and the velocity of sound were known to the Royal Society, and in all of this Hooke was interested. Pepys, himself an excellent musician, relates that a discourse of Hooke's on musical notes was excellent, but, he records, "to tell how many strokes a fly makes with her wings is a little too much refined." Pepys was incredulous, but he possessed the discernment necessary to rate the insignificant-appearing Hooke over that wealthy, aristocratic, and excellent scientist, Robert Boyle.

The following quotation from Hooke is disturbing to our twentieth century smugness. A dreamer of dreams and a doer of deeds, Hooke with his microphones invaded a field in which he was but a dilettante. By no means can we give him priority in the invention and use of the stethoscope, for his concluding sentence in the following quotation is a disclaimer; but by 150 years we can grant him priority over Laennec in everything but the urge of pursuit born of Laennec's medical training and environment:

There may also be a possibility of discovering the Internal Motions and Actions of Bodies by the sound they make, who know but that as in a Watch we may hear the beating of the Balance, who knows I say, but that it may be possible . . . that one may discover the Works performed in the several Offices and Shops of a Man's Body, and thereby discover what Instrument or Engine is out of order, what Works are going on at several times and lie still at others, and the like. . . . I could proceed further, but methinks I can hardly forbear to blush, when I consider how the most part of men will look upon this. . . . And somewhat more of Incouragement I have also from Experience that I have been able to hear very plainly the beating of a Man's Heart, . . . the stopping of the Lungs is easily discovered by the Wheezing . . . for to me these Motions and the other seem only to differ secundum magis et minus, and so to their becoming sensible, they require that their motion be increased, or that the Organ (the examiner's ear) be made more nice and powerful to sensate and distinguish them, many cases *there may be Helps found, some of which I may, as opportunity is offered, make Trials of, which, if successful and useful I shall not conceal.*

1800 West Sixth Street.

### JOHN TOWNSEND—THE PERIPATETIC PIONEER\*

By FRANCES TOMLINSON GARDNER  
San Francisco

#### PART I

ALTHOUGH they followed a calling whose usual habitat is a single restricted locality, the medical men of the '40's and '50's were no more immune to the call of adventure than men of any other profession. As the long lines of emigrant wagons spread across the great plains, and the white sails and puffing stacks of ships left eastern harbors bound for California, most companies contained one or more disciples of Aesculapius. These physicians were adventurers fundamentally and no call of duty, love or money was as strong as the siren song of the unknown. In the early days of California, even before the rush for gold became the goal, such a number of doctors appeared within her boundaries that she was overpopulated with them, and many turned to other things to make a living. They were jacks of all trades, and some of the occupations in which they expended their excess energies were hard to justify by the oath of Hippocrates. They became merchants, miners, soldiers, editors, and farmers, and at least one became a swindler. They sought and found their levels as inevitably as though they had never left their native states.

#### DR. JOHN TOWNSEND

A pioneer of pioneers, a perpetual seeker after the foot of the rainbow, was Dr. John Townsend, a member of the first party ever to bring wagons into California.

John Townsend was born in Fayette County, Pennsylvania. The date of his birth seems uncertain, but can be placed reasonably within the first ten years of the nineteenth century. His father was an Englishman, a pioneer of Fayette County, who brought up little John on bed-time stories of exciting pioneering in uninhabited Pennsylvania.



JOHN TOWNSEND

Early in his life the boy showed passionate interest in the feats and struggles of inhabitants of an outpost.

Townsend had the average American education of his day and took his degree from Lexington Medical College. No more had the ink on his diploma dried than he began to show the spirit of curiosity and the inability to stay put which characterized him all his life. Gradually he wandered farther and farther West, as though drawn by an invisible magnet. Although he had never heard of California in more than a casual way, it was as if he could not resist the sound of the waves on the shore of the Pacific Coast. After a year or two of practice in Pennsylvania, now too bucolic by far, he turned up in Ohio where he was married, in Stark County in 1832, to Elizabeth Louise Schallenberger. Finally, in 1843, he was obstetrician, surgeon and general practitioner in Buchanan County, Missouri, having made a brief stop in Indiana en route. As he rode about on his rounds he heard the county people speaking more and more about this wonderful new land beyond the Rocky Mountains. It was Mexican, to be sure, but reputed to be bounteously supplied with all the good things of the earth. It was fertile, it was delightfully warm in winter and cool in summer, and it was practically unpopulated except for some notoriously lethargic Spanish folk and a lot of very lazy Indians. The consensus of Missourian opinion was that a man would have an unexampled opportunity there if he were willing to apply himself—and if he were willing to make the laborious trip necessary to reach the promised land.

Townsend was anything but hard to persuade. He had put down no roots to speak of since gradu-

\*From the University of California Medical School Library and the California State Medical Library.



ation from the medical school. He had, besides, another great inducement in the Californian climate; for Elizabeth, his wife, had never been strong and in recent months had been in very fragile health. When Elisha Stevens organized his party in 1844, the section of it which was bound for California contained the bright new wagons and equipment of John Townsend, his wife and his brother-in-law, Moses Schallenger, a boy of seventeen.

#### STEVENS-MURPHY PARTY

The Stevens party has often been called the Murphy party or the Stevens-Murphy party, although it was actually organized by, and was under the orders of Elisha Stevens. The reason for this constant confusion lies in the fact that there was a very large number of persons named Murphy in the train. It was made up of sections for California and Oregon. The sections traveled as one train as far as Fort Hall, where approximately half the party turned off on the Oregon route, while the California group, which contained eleven wagons, twenty-six men, eight women and a dozen children, continued down the Mary River (now the Humboldt) until they reached its sink.

The Stevens party was the second wagon train to start the trip across the prairies in 1844, and its path was badly marked and long. Traffic had not yet worn wheel marks in the earth of the plains, and an occasional scout or trapper was all that could be counted on for guidance after civilization was left behind. By the time the California wagons reached the Humboldt's sink, though the season was growing late, they were forced to stop and spend ten days to give the oxen strength to carry them over the last, but most taxing weeks of the journey.

The party left the Humboldt behind early in November, and looked ahead to see the formidable Sierra purple and frowning in the distance. Their passage to the base of the mountains was a long agony, for the hoofs of the oxen grew soft and sore from wading in the icy streams, and the grass was poor and thin in the late season.

#### THE TRUCKEE COUNTRY

Late in November they crossed the Truckee and the Bear rivers, under the guidance of an Indian whom they named Truckee and for whom they named the river and lake. They were, it appears, the first emigrant party to take this route, now the route of the railroad. At the forks of the Truckee, Mrs. Townsend, Ellen Murphy, John and Daniel Murphy, and a man named Magnent left the party and swung downstream to Lake Tahoe, through to St. Clair's rancho and so to Sutter's Fort. They arrived safely with all their horses, though they had a hard and hungry journey.

The rest of the party went on to Truckee Lake at the very foot of the pass in the Sierra. This lake, sparkling in the late autumn sun, was within a short time to become a place of tragedy and ill omen, for two years later it earned its share of the greatest debacle in the history of the emigration, taking the name by which it is known today, Donner Lake.

At the western end of the lake, under the shadow of the terrible perpendicular pass, the party drew a long but apprehensive breath. While they had rested at the Humboldt, snow had begun to fall in the mountains; and though they made their best time, they had been compelled to spend a long month of desperate haste and agony to reach the spot in which they were now camped. As they looked up at the forbidding silent pass, powdered with the first light snow, they confirmed the unspoken apprehension that it was too late for a concerted crossing of the mountains.

#### SIERRA HARDSHIPS

It is difficult for the modern eye, especially an eye unaccustomed to the frozen dangers of the Sierra, to picture the happenings of the next few weeks. It is hard to appreciate that the trip, for which three hours is now considered a long time, consumed weeks of heart-breaking and terrifying struggle. Few realize that the disaster of the crossing was not in its first upward climb from the east, sheer and terrible though it was, but in the endless miles of descent into the valley. This was the *Via Dolorosa* of the emigrants, who dallied too long and were caught in the mountains after winter had begun.

There was no time to be lost. Snow had begun to pile in small drifts around the camp, and the clouds gathered spitefully and ominously even as they talked. Without snow to hamper them, the animals, though in poor condition, might drag the wagons over the pass, but if the snow began to fall no man could help them over the boulders nor keep them on the surface of the soft deep snow on the plateau beyond.

University of California Medical Library.

(To be continued)

## CLINICAL NOTES AND CASE REPORTS

### HERPES ZOSTER AND VARICELLA IN PATIENT WITH CARCINOMA OF PLEURA AND LUNG\*

By HARRY E. ALDERSON, M. D.

AND

PHILIP H. PIERSON, M. D.

*San Francisco*

THE subject of this report had been in the hospital for six months, with only occasional outside exposures. She developed herpes zoster, followed in nine days by typical varicella.

The possible close relationship of the virus of herpes zoster and that of varicella is indicated by the increasing number of similar case reports published the past few years.

#### REPORT OF CASE

CASE 1.—Miss A. E. (history No. 38859), aged 49, had an amputation of the left breast for carcinoma at Johns

\* From the Clinics of Dermatology and Chest Diseases, respectively, Stanford University Medical School.



Fig. 1.—Varicella, accompanying severe herpes zoster in a case of carcinoma of lung and pleura.

Hopkins, by Doctor Kelly, in 1929. In 1938, carcinoma of the pleura and lung developed. At that time the patient was hospitalized under Doctor Pierson's care, receiving deep roentgen therapy by Dr. Eric Liljencrantz of Stanford University during August, 1938. After a long period of digestive disturbances, in September and October she began to improve, so that by February 8, 1939, she was able to eat well and take rather long walks without discomfort. On February 6, 1939, however, she developed severe herpes zoster in the distribution of the left ninth dorsal segment. The vesicles were almost hemorrhagic and confluent over an area from 5 to 10 centimeters wide. The pain was very severe.

On the ninth day of the herpes zoster typical *varicella* developed with widely scattered lesions, which appeared spread over the body, on the *scalp*, and *inside the mouth*. They developed in the usual manner, and in about two weeks had practically subsided.

The chest involvement in this case will be discussed in detail later in a special paper by Doctor Pierson.

490 Post Street.

## TOOTHPICK IN THE SUBMAXILLARY DUCT AND GLAND

By H. P. MERRILL, M. D.  
Los Angeles

THIS patient, a healthy middle-aged male, was admitted to the Veterans' Administration Hospital, complaining of a discharging fistula on the left side of his neck. He stated that it had been present since the incision of an "abscess" several months before. This "abscess" had developed suddenly without any acute infection in the mouth or throat. Incision had relieved the immediate symptoms and the wound had closed in a few days, only to have the swelling recur, so that re-incision had been necessary. This process had been repeated several times.

### REPORT OF CASE

Examination showed a small fistula leading into the lower part of the submaxillary gland and discharging a small amount of purulent saliva. A probe passed well into the gland, but did not touch any hard substance. The gland was only slightly larger than normal. Within the mouth the distal part of the duct appeared normal, but back near the gland a tender mass was felt. After considerable search the orifice of the duct was located and a fine probe passed along the duct until a foreign body, assumed to be a stone, was located. The mouth and throat were clean. All teeth had been extracted for several years.

After two attempts by the resident to remove this foreign body intraorally had failed, I removed the gland and most of the duct. Prompt healing followed.

In the proximal part of the duct, and extending into the gland, was a piece of common wooden toothpick about three centimeters long. There was no calculus and no evidence of calcareous deposit on the toothpick. The gland showed practically no damage from infection, and would probably have returned to normal if the toothpick had been removed intraorally.

### COMMENT

Strange foreign bodies have been reported in the salivary glands and ducts. Most of them seem to have been seeds or stems of plants or splinters. Many of them have been, like this one, so large that it seems impossible for them to enter a tiny opening that requires careful search to locate and enter with a fine probe.

The part foreign bodies play in the formation of calculi seems to me to be uncertain. I have not been able to demonstrate a definite foreign body nucleus in around forty calculi. Certainly, the dogmatic statement that all such calculi have a foreign body nucleus is not justified. This, as well as the statement about their rarity, has apparently been unquestioned since the condition was first described. Like bladder-stones they may or may not have a nucleus, and they are rare only because they are seldom looked for. Bimanual palpation of the gland and duct areas frequently shows up a more or less sensitive mass which probing or x-ray proves to be around a stone, in patients who have had no symptoms at all. Palpation and probing are of more value in diagnosis than the x-ray, as some stones and most vegetable matter do not show on the film.

All foreign bodies in the duct, and most of them in the gland, can be removed through the mouth. When an abscess or much acute inflammation is present, these should be treated before removal is attempted. Incision of the abscess is often followed by the appearance of the stone in the incision. Excision of the gland should be reserved for cases where the gland has been badly damaged by infection, recurrent stones, external incisions, or when malignancy is suspected.

458 South Spring Street.

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*Acidified Candy May Be Tooth Menace.*—If acidified candy is frequently allowed to dissolve against the teeth, serious softening of the enamel may result, experiments summarized in *The Journal of the American Medical Association* suggest.

In the experiments of Edward S. West and Frederick R. Judy, freshly extracted teeth were mounted singly in rubber stoppers by embedding the roots in beeswax followed by a coat of acid-proof paint. Only sound enamel was exposed. The teeth were then exposed to solutions of varied strength of acidified candies in water, these solutions showing high acid reactions.

Although the action of the saliva in the mouth, where it is being continually secreted, is undoubtedly more efficient in combating the effects of acidified candies than in the experiments reported, the teeth treated in the experiments under conditions that led to dissolving of tooth enamel showed a chalky insoluble layer on the surface which could be easily scraped off.

The investigators are of the opinion that the dissolving of the calcium and phosphorus of the teeth by the acid in various foods may be an important factor in the general process of tooth destruction.



# BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

## URETERAL CALCULUS

### I. SYMPTOMS

JAY J. CRANE, M.D. (1921 Wilshire Boulevard, Los Angeles).—The classical symptoms of pain, hematuria, pyuria and fever present during the passage of a ureteral calculus vary in intensity and duration, with the size and shape of the stone and the amount of obstruction produced. "The smaller the stone the worse the colic." Anuria and rupture of the ureter, while quite rare, are nevertheless serious and often deadly.

**Pain:** The calculus not acutely obstructing the outflow of urine, but causing slight back-pressure with dilatation of the pelvis or even a single calix, is usually of a dull, aching character, situated in the loin and costovertebral angle, radiating downward and forward toward the groin and external genitalia, with the maximum tenderness over the kidney pelvis or the outer border of the rectus on a level with the umbilicus. The pain is usually not constant, and varies in intensity, disappearing at times altogether, being interrupted by periods of calm during which time the fever usually also subsides, indicating improved drainage past the stone. Such a reflex or radiating pain, when occurring on the right side, associated with nausea and vomiting, may readily be mistaken for an attack of appendicitis.

With an increase of the distention of the urinary channels above the impacted calculus, caused by more complete stoppage of the passage of the urine, excruciating pain ensues. This severe type of pain (renal colic), is characterized by its waves of intense pain which are unendurable.

When the stoppage of urine is complete, the pain subsides and a more or less painless unilateral anuria results. Colic occurs early in the disease and tends later to become milder.

**Hematuria:** Microscopic blood is constantly found in the urine as long as the stone is harbored in the urinary passages, and is especially noted during the acute attacks. Gross blood may be present at times, but rarely in sufficient amounts to be considered serious.

**Infection,** which invariably ensues during the progress of the disease, is responsible for the chills and fever. Pyelonephritis, infected hydronephrosis, and pyonephrosis, due to calculus disease, are relieved promptly with ureteral catheter drainage or the sudden liberation of urine behind the stone. When drainage is restored, the fever subsides.

**Anuria** is characterized by little or no urinary output, and a rapidly progressing uremia with all of its manifestations, more rapid than otherwise because of the superimposed infection. Unless drainage is promptly instituted, death is certain.

Perforation of the ureter or pelvis results in an extravasation of urine, followed by cellulitis and infection. Sustained symptoms of sepsis, with localized pain and rigidity, are constant.

\* \* \*

### II. DIAGNOSIS

CHARLES PIERRE MATHIÉ, M.D. (450 Sutter Street, San Francisco).—Although ureteral calculus can be accurately determined in 98 per cent of patients suffering from this painful disease, its diagnosis is not always simple. Its presence is still being overlooked as a considerable number of cases with stone in the right ureter have been previously operated upon for appendicitis (35 per cent) in our series. The attending physician is also likely to confuse ureteral stone with gall-bladder disease, tabes dorsalis, duodenal ulcer, inflammatory processes of the female adnexa and, in rare instances, with intestinal obstruction or pneumonia. It often simulates diseases of the upper urinary tract, caused by other types of ureteral obstruction such as ureteral stricture, ptosis of the kidney with kinking of the ureter, and extraneous pressure resulting from inflammatory lesions or neoplasms in the adjacent organs.

The symptoms are quite characteristic: they consist of pain in the form of renal colic, or continuous dull lumbar ache, and are usually accompanied by nausea, vomiting and gaseous distension of the abdomen, chills and fever, hematuria, frequency and dysuria. The previous passage of gravel or small stones should always lead one to suspect the presence of ureteral calculus.

The first step in ruling out appendicitis, gall-bladder disease or other confusing abdominal lesions, is the making of a careful urine analysis. A considerable number of patients present gross hematuria in whom the presence of blood in the urine is quite apparent. Careful microscopic examination of urine invariably shows erythrocytes which result from the scratching effect of the stone on the mucous membrane of the ureter. We encountered microscopic blood in all of the cases of ureteral stone that have come under our observation. Blood cells may also be found in the urine of the patient suffering from retrocecal appendicitis, but in these no stone-shadow is seen, the leucocyte count is higher, and the percentage of polynuclear leucocytes is elevated, etc. So, with careful study, the differential diagnosis between ureteral stone and retrocecal appendicitis can be accurately made. Albumin, leucocytes, and microorganisms are also found when concomitant infection is present. The presence of crystals is, again, of diagnostic value. These are usually of the variety which makes up the stone, and the finding of these crys-

tals in the patient suffering from uric acid stone which is nonopaque to the x-ray, is of great diagnostic value.

In making the diagnosis of ureteral stone, the information obtained from investigation of the ureter by means of the cystoscope, the passage of the ureteral catheter and the employment of the roentgen ray is invaluable. A certain percentage of stones situated in the lower portion of the ureter can be palpated by digital exploration through the rectum or vagina, and, in some instances, by careful palpation of the lower abdomen. The cystoscopic picture is quite characteristic of stone. When the stone is situated in the intramural portion of the ureter it can sometimes be seen projecting from the orifice; in others the ureteral orifice is swollen, edematous and bulging. In patients in whom the stone is situated higher up in the ureter, the orifice usually appears congested. In introducing the ureteral bougie, the sensation of resistance caused by the obstructing stone is of great diagnostic value. In passing the stone one often experiences a typical grating sensation. One may pass a wax-tipped catheter or bougie in order to obtain the characteristic gouge, the significance of which was emphasized by Howard Kelly some thirty-five years ago. The adoption of the water-dilating cystoscope has resulted in technical difficulties because the wax was often scratched in being introduced through the cystoscope; and thus erroneous conclusions have led many urologists to give up its use. The diagnostic signs of resistance and gouging of the wax-tipped catheter are valueless in patients presenting bifid ureter, diverticulum or greatly dilated ureter, because in these cases the catheter, in passing up the ureter, may fail to touch the stone.

The employment of the x-ray enables one to clear up the diagnosis in obscure, suspected cases of ureteral stone. Because of the highly improved x-ray technique employed at the present time very few stones are invisible to the x-ray, and even those that are slightly opaque can be visualized. The non-opaque, uric acid stone is rare, and is overlooked when one depends on the x-ray for its diagnosis. We have observed only two proven cases presenting this type of uric acid calculus. The most valuable x-ray sign is the insertion of the opaque catheter or bougie into the ureter, and the demonstration of the contact of said catheter with the opaque stone. A calcified gland, phlebolith, sclerotic artery, enterolith, fecolith, or foreign body in the intestines or shadow in the pelvic bones may appear to be in contact with the opaque catheter, and may be mistaken for ureteral stone. Stereoscopic films taken at different angles, both in the lateral and anterior posterior positions, are necessary in order to clarify the diagnosis in these cases. On the other hand, the shadow cast by a stone located in the other ramus of a bifid ureter, or in a diverticulum, may appear to be out of the ureter. As duplication of the ureter occurs in about 4 per cent of patients, further investigation by ureteropyelography is necessary in order to detect the occasional ureteral calculus that lodges in the bifid ureter, or in a diverticulum of the ureter.

Ureteropyelography is of great assistance. It enables one to locate the stone in the ureter, to demonstrate its obstructing effect, and to visualize the amount of damage producing dilatation of the ureter and pelvis above. The taking of fractional films after withdrawal of the catheter, or after the intravenous injection of one of the opaque solutions now at our command, demonstrates the amount of obstruction caused by the impeding stone. The employment of intravenous urography is of great value, particularly in those cases in which one is unable to pass the ureteral bougie above the stone. Unfortunately, it is not as precise as retrograde urography. When kidney function is inhibited, very little dye is excreted by the impaired organ, and poor ureterograms result. In fact, in some patients with impaired renal function we have noted that the dye has not been eliminated in sufficient concentration to cast any shadow at all. In some of these cases suppression of renal function was not due to total destruction of the kidney, because, after the obstructing stone was removed, renal function returned to normal, as determined by making the indigocarmine and phenolsulphonephthalein dye tests or by subsequent employment of intravenous urography.

The diagnosis of ureteral calculus depends upon a careful history, complete urine analysis, employment of the x-ray and intelligent interpretation of findings obtained by cystoscopic study and ureteral catheterization. In differentiating ureteral calculus from appendicitis, gall-bladder disease and other lesions of the gastro-intestinal tract, the finding of blood in the urine is quite significant. Intravenous urography indicates that the trouble is in the upper urinary tract. Precise diagnosis, however, still depends upon cystoscopy, the passage of opaque ureteral catheter and the employment of the x-ray, including stereoscopic films and ureteropyelography. With intelligent interpretation of the findings obtained by the improved diagnostic methods now at our command, 98 per cent of ureteral stones can be accurately diagnosed.

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### III. TREATMENT

ROGER W. BARNES, M. D. (746 Francisco Street, Los Angeles).—The proper management of the case of ureteral calculus is an individual problem. The treatment may be (1) expectant, (2) manipulative, or (3) surgical, depending upon several factors, the chief of which are the size of the calculus, the position of the calculus, and the amount of complicating infection, all of which the diagnosis has determined.

*Expectant treatment* may be used when the calculus is less than 2 millimeters in diameter and there is no renal infection, or when a diagnosis of calculus has been made from the symptoms, physical examination, and urinalysis, and roentgenograms show no shadows resembling calculus. It consists of sedation in sufficient amount to relieve the pain, and an antispasmodic, such as atropin, to relieve the ureteral spasm. It has been shown that opiates do not relax the smooth muscle of the ureter. The patient should take at least 3,000 cubic centimeters



of fluid in twenty-four hours, and bed rest is not necessary; in fact, it is probable that the calculus will pass more rapidly if the patient is up. Expectant treatment should not be continued if infection occurs, or if the patient is disabled for more than ten days due to repeated attacks.

*Manipulative treatment* is accomplished by means of bougies, catheters, and dislodgers through the cystoscope, and is indicated when there is renal infection, when a small calculus does not pass and causes recurrent attacks of colic, and when the calculus is more than 2 millimeters and less than 1 centimeter in diameter. Most stones larger than 1 centimeter require open operation unless they are near the ureteral orifice. The kind of cystoscopic manipulation used varies greatly, and depends upon the training and experience of the cystoscopist; but all urologists agree on certain fundamental principles. If there is infection in the kidney above the stone, it is important to establish drainage of the renal pelvis by passing a catheter, or if possible several small catheters or bougies, by the stone, and leaving them in place for from one to four days. When these are removed, the calculus will often follow in a day or two without further manipulation. If there is no renal infection and only slight disability due to pain, a more gradual dilatation of the ureter is accomplished by means of treatments at intervals of seven to ten days, using bougies of increasing sizes which are passed up to or above the calculus through the cystoscope; or, if the stone is within 4 or 5 centimeters of the ureteral orifice, it may be possible to engage it in a ureteral calculus dislodger of some type, and remove it. Inasmuch as the ureteral orifice is the narrowest portion of the ureter, it is frequently necessary to incise this by means of cystoscopic scissors or an electro-cutting instrument in order to obtain passage of the stone. Because of edema of the ureteral mucosa caused by manipulative treatment, it is useless to repeat the treatment more often than once a week, and in the interval the patient is treated expectantly. Cystoscopic manipulation must always be carried out with the utmost gentleness, for injury of the urinary passages increases the patient's pain, obstructs urinary drainage, predisposes to infection, and is frequently followed by stricture formation. With our present-day armamentarium of urinary antiseptics, renal infection can be controlled much more readily than formerly. Alternating a mandelate preparation such as calcium mandelate, grains xv, t. i. d. for a week with sulfanilamide, grains xv, every four hours for two days, grains x every four hours for two days, then grains v every four hours for two days, will aid greatly in controlling infection, and will frequently eliminate it entirely. The patient must be watched closely for toxic symptoms while he is taking the sulfanilamide, and the drug discontinued if they are pronounced. During the progress of expectant and manipulative treatment, observation of the kidney for possible damage due to obstruction from the ureteral calculus must be frequently made; and if it is shown by differential functional tests, by pyelographic study, or by signs of continued infection in the kidney, that renal damage is progressing, these

types of treatment should be abandoned and ureterolithotomy resorted to. This is especially true in the case of bilateral ureteral calculus, and in cases which have an absence of, or a previously damaged, opposite kidney.

*Surgical treatment* is indicated when the calculus cannot be removed cystoscopically because of its size, shape, or position in the ureter, and when renal infection due to obstruction by the stone cannot be adequately controlled. Most calculi which are 1 centimeter in diameter or more cannot be moved down the ureter into the bladder, especially if they are located in the upper two-thirds of the ureter; sometimes a stone which has sharp projections on its surface will become impacted in the ureter, and cannot be dislodged by cystoscopic manipulation; and occasionally a ureteral stricture or kink just below a calculus will prevent successful dilatation. In these cases ureterolithotomy must be resorted to. The surgical approach depends upon the position of the stone: if it is below the upper edge of the sacro-iliac joint, a low midline, extra-peritoneal approach gives the best exposure; and if above this point, a lumbar incision with the patient in the kidney position is indicated. A convenient but little used approach is the vaginal route which may be indicated in multiparous women when the calculus is low and can be palpated through the vaginal wall. A neglected ureteral calculus may result in kidney damage to such an extent that removal of the kidney and sufficient ureter to include the stone is necessary.

*Prophylactic treatment* is indicated in every case of urolithiasis. It consists of establishing and maintaining free urinary drainage, eliminating urinary tract infection, controlling the reaction of the urine, and supplying dietary deficiencies. The treatment of the patient with ureteral calculus does not end with the removal of the stone; on the contrary, he is kept under observation and treated until there is a normally functioning urinary tract. If fibrosis and ureteral stricture have resulted from the calculus, ureteral dilatation is continued until free drainage is assured. If renal infection persists, urinary antiseptics and, sometimes, kidney pelvic lavage are necessary to remove this infection. Inasmuch as the reaction of the urine is a factor in producing urinary calculi, an examination of the stone after removal, or a pH determination of the urine will aid in directing prophylactic treatment. If the calculus is phosphatic and the urine is persistently alkaline, medication, such as ammonium chloride, sodium acid phosphate, or nitrohydrochloric acid, and an acid-ash diet, is indicated to change the reaction of the urine; whereas if the urine is excessively acid, an alkalinizing program is given until a near neutral reaction is obtained. Deficiencies in diet and an insufficient water intake are proven factors in the causation of urinary lithiasis, and prophylactic treatment includes a diet list which is high in vitamins A and D, or supplementing the diet with haliver oil or other vitamin preparations. The patient should also form the habit of drinking 3,000 cubic centimeters of water in twenty-four hours if he wishes to avoid a recurrence of the ureteral calculus.

**Prognosis.**—When the patient suffering with a ureteral calculus is seen in the early stages of the disease, and is managed intelligently, there is very little question but that the outcome will be favorable. However, in cases which are neglected or incorrectly treated, complications may arise which become very grave, and may result fatally. Concurrent diseases, especially cardiovascular or renal, may change what would otherwise be a good prognosis into a poor one; for these patients do not tolerate cystoscopic manipulative procedures any better than they do surgical procedures.

The recurrence of ureteral calculi depends to a great extent on the prophylactic treatment carried out after the removal or passing of a stone. Statistics on recurrence differ greatly, and vary from those of Jeaubrau, who reported only two cases of recurrence in 220 patients treated, to those of Rosving and others, who report recurrences in almost half of the cases they have collected. In the average urological practice approximately 15 per cent of the cases give a history of having had previous attacks of colic which had been diagnosed as ureteral stone. It is probable that this percentage will be reduced considerably when prophylactic treatment is more widely used.

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**Aid for the Medical Witness.**—The courtroom is an unfamiliar and often dreaded territory. Far pleasanter places than the witness chair can be imagined. However, every doctor faces medico-legal problems and controversies. With tomorrow may come a summons to appear in civil or criminal court as a factual or as an expert witness. The doctor's importance as an aid to the administering of justice has been accelerated by this modern age of speed and of machines. Automobile accidents and industrial accidents have increased. Occupational diseases have come into prominence. Workmen's compensation, employers' liability, trade-unions and in some states, industrial accident commissions, are modern developments.

As a result, the vast and intricate subject of medical jurisprudence becomes of greater concern and import. It has been noticed in the library of the Society that books on legal medicine and its ramifications are an increasing demand. A wealth of material is available. The library possesses an unusually rich collection of volumes on fraud and malingering forensic medicine, toxicology, court cases, criminology, industrial hazards, legal phases of psychiatry, compensation insurance, and so on. There is also an almost unlimited amount of material to be found in the periodical indexes.

While interest in these various phases of legal medicine is somewhat sudden, the subject is older than the printed page. Historical instances of the simulation of disease abound. Zachais, a physician of Rome (1620) wrote the first classical treatise on the medico-legal aspect and established principles that are sound today. In 1650 Michaielis of the University of Leipzig gave the first lecture on legal medicine and a century later professorships were founded in Germany. In 1803 a chair of Forensic Medicine was established at the University of Edinburgh. In 1876 Dr. S. E. Chaillé, in a masterly address on the development of medical jurisprudence, a subject dear to his heart, wrote: "The states have as yet made no demand for competent medical experts to aid the administration of justice, and have done nothing designedly for the culture of medical jurisprudence."

Progress has been made since that day. Medical witnesses may, through reading and study, give evidence in

the most forceful and effective manner. From "Frauds in Medical Practice," by the noted authority, Sir John Collie, we take these rules for giving evidence:

1. Speak slowly and distinctly.
2. Watch the judge's pen. When he stops writing resume your evidence.
3. Look at counsel as he propounds his questions, but direct your reply to the judge and the jury.
4. Answer the exact question put. If any explanation or amplification is necessary, the witness has a right to give it after giving a direct answer.
5. In giving medical advice, one must be careful not to give the court the impression that you know it has not any really sound knowledge on medical subjects.
6. Nothing is more effective than to take into the witness box a model or picture. This always impresses both the judge and the jury. One can often make a fracture quite clear by showing a bone.
7. A medical witness can always take his notes with him into the witness box and refresh his memory from them *if and only if they are the original notes which he took at the time of his examination.*
8. Seldom, if ever, use technical language; if it is imperative to do so, explain it.
9. Make sure that your process of reasoning is abundantly clear.
10. Put aside all bias, and be absolutely candid. Remember that you have sworn not only to tell "the truth," but "the whole truth." This, I take it refers to *suppressio veri*. Do not hesitate to admit a fact which may at first sight appear to be against your contention. You will probably be able to demonstrate that it is not so in reality. In any event, the admission will demonstrate such fairness that the remainder of your evidence will have an advanced value.
11. A medical witness should be scientifically exact, lucid and succinct.
12. Remember that, in medicine at any rate, anything is possible; therefore, get the credit of willingly admitting it.
13. Never give evasive answers.
14. Never guess.

—The Bulletin, Orleans Parish.

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**Sulfanilamide May Prove Valuable in Treatment of Tularemia.**—That sulfanilamide may eventually prove of value in the treatment of tularemia is indicated in the report of one case, in *The Journal of the American Medical Association*, so treated by Walker L. Curtis, M. D., College Park, Georgia.

Tularemia is generally contracted from infected rabbits. While one is dressing such rabbits the infection can easily pass into his blood stream through a scratch or abrasion of the skin.

The case reported by Doctor Curtis occurred in a middle-aged woman who was suffering from chills, fever, nausea, vomiting, and headache. Her condition grew steadily worse: to the general symptoms were added mild pain in the right arm and more severe pains over the chest and right upper quarter of the abdomen; she became weaker and somewhat irrational.

"Two days after the administration of sulfanilamide," the author states, "the symptoms of tularemia, severe for more than two weeks, subsided and convalescence has been uneventful. So far I have found no report of an earlier case of tularemia successfully treated with sulfanilamide."

"After the patient had recovered she recalled that a week before she became ill she had taken some dressed rabbits from salt water and wrapped them up. The nature of her occupation was such that she often had scratches and abrasions of her hands."



# CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

## CALIFORNIA MEDICAL ASSOCIATION†

CHARLES A. DUKES.....President  
HARRY H. WILSON.....President-Elect  
LOWELL S. GOIN.....Speaker  
KARL L. SCHAUPP.....Council Chairman  
GEORGE H. KRESS.....Secretary and Editor

### OFFICIAL BUSINESS ASSOCIATION ACTIVITIES

#### 1. *Minutes: Council of the California Medical Association.*

##### DEPARTMENT OF PUBLIC RELATIONS

1. *Socialized Medicine.*
2. *Doctoring Not a Trade.*
3. *Army Doctors Ordered to Pay Registration Fee.*
4. *A Glance at the California Legislature's Record.*
5. *Epilepsy: A Reportable Disease.*
6. *California Physicians' Service: Bulletins.*
7. *California Legislature: Session of 1939.*

##### COUNTY MEDICAL SOCIETIES: REPORTS WOMAN'S AUXILIARY TO THE C. M. A.

### COUNCIL OF THE CALIFORNIA MEDICAL ASSOCIATION

#### Minutes of the Two Hundred and Seventy-Eighth (278th) Meeting of the Council of the California Medical Association

Held in Room 209, Hotel Sir Francis Drake, San Francisco, Saturday, August 5, 1939, at 9:30 a. m.

##### 1. **Call to Order.**

The meeting was called to order by Chairman Schaupp.

The following members were present: President Charles A. Dukes, President-Elect Harry H. Wilson, Past President William W. Roblee, Speaker Lowell S. Goin; Councilors Calvert L. Emmons, George D. Maner, Louis A. Packard, Axcel E. Anderson, C. Kelly Canelo, Karl L. Schaupp, Frank A. MacDonald, Henry S. Rogers, William H. Kiger, P. K. Gilman, E. Earl Moody, Elbridge J. Best, Frederick N. Scatena; Chairman of Public Relations Committee George G. Reinle, Secretary-Editor George H. Kress. Present by invitation: Vice-Speaker Dewey R. Powell, Chairman of Committee on Public Health Education Frank R. Makinson, and Legal Counsel Hartley F. Peart and Associate, Howard Hassard.

Absent: Doctors C. O. Tanner and O. D. Hamlin.

##### 2. **Condolence to Hall G. Holder.**

A telegram from C. O. Tanner was read, stating that his absence was occasioned by the death of the daughter of Dr. Hall G. Holder, President of the San Diego County Medical Society, whose work he was assuming.

The Secretary was instructed to forward a telegram to Doctor Holder, expressing the deep sympathy of the Council in his loss.

##### 3. **Minutes of the Council.**

It was moved by Charles A. Dukes, seconded by Harry H. Wilson, that the minutes of the 277th meeting of the Council be approved. Carried.

##### 4. **Minutes of the Executive Committee.**

It was moved by Charles A. Dukes, seconded by Harry H. Wilson, that the minutes of the 156th meeting of the Executive Committee be approved. Carried.

##### 5. **Mail Vote on Newspaper Publicity.**

Report was made on the mail vote of the Council concerning action taken at the Council meeting held on June 3 (items 23 and 46). Chairman Schaupp stated it was necessary to proceed promptly in the matter, if the newspaper announcement was not to appear. Dr. Lowell S. Goin raised a question of parliamentary procedure and, after discussion, it was moved by Harry Wilson, duly seconded and carried, that the Council sustain the objections of Doctor Goin, but approve the courage of the Chairman of the Council and of other officers of the Association in acting for the best interests of the Association.

It was agreed that proper parliamentary procedure should be adhered to at all times so that there would be no abuse of privilege.

##### 6. **Financial Statements.**

Financial statements for the months of June and July, 1939, were presented.

The Secretary reported that, at the present time, \$10,000 cash was available in the California Medical Association accounts; that California Physicians' Service had borrowed \$5,000 on the \$15,000 loan approved for its work, leaving a balance of \$10,000 that might be called for; that the California Medical Association Cancer Exhibit at the Golden Gate International Exposition had a drawing account on its original allocation of \$5,000, of approximately \$1,500; that, of the \$20,000 borrowed on security of United States Government Bonds from the Trustees Of The California Medical Association, \$5,000 had been repaid by the California Medical Association, leaving a balance of \$15,000 due the Trustees from the California Medical Association.

It was moved by Charles A. Dukes, seconded by A. E. Anderson, that the financial reports for the months of June and July, 1939, be approved. Carried.

##### 7. **Membership.**

Association Secretary Kress reported that on July 31 the membership was 6,123; and that 325 new members had joined the Association during the current calendar year.

##### 8. **Retired Membership.**

The Secretary presented requests for retired membership from various county medical societies.

It was moved by Calvert L. Emmons, seconded by A. E. Anderson, that retired membership be granted Dr. George Deacon, Los Angeles County Medical Association; Dr. R. A. Buchanan, San Joaquin County Medical Society; Dr. Dwight D. Johnson, Placer County Medical Society; Dr. Alfred H. Tickell, Placer County Medical Society; Dr. C. J. Schmelz, Sonoma County Medical Society; and Dr. Clark J. Burnham, Sr., Alameda County Medical Association. Carried.

##### 9. **Affiliate Fellowship in American Medical Association.**

A letter was presented from the Council of the Los Angeles County Medical Association requesting the Coun-

† For complete roster of officers, see advertising pages 2, 4, and 6.

cil of the California Medical Association to recommend to the American Medical Association House of Delegates that affiliate fellowship be granted William H. Gilbert of Los Angeles.

It was moved by George D. Maner, seconded by William H. Kiger, that William H. Gilbert be recommended by the Council for affiliate fellowship in the American Medical Association. Carried.

#### 10. Premarital Examinations.

A letter was presented from Dr. Russell V. Lee, Chairman of the Planning Committee of the American Social Hygiene Association, which had been sent to all component county medical societies, suggesting that physicians make, without cost, the examinations stipulated in the premarital law enacted by the recent California legislature.

It was moved by Harry H. Wilson, seconded by George Maner, that it is the belief of the Council that members of the California Medical Association approve the new law, and that, as regards professional services to citizens coming under the Act, individual physicians would be happy to take into consideration the financial backgrounds of citizens; and further, that, in the matter of fees, physicians should be guided by the practice and principles followed in their respective communities; and, also, that the fees to be charged are matters for determination by the individual physicians and the patients. Carried.

#### 11. Committee on Public Health Education.

Frank R. Makinson, Chairman of the Committee on Public Health Education, the committee that is charged with the responsibility of carrying forward the work contemplated by the House of Delegates Substitute Resolution No. 6, with funds provided through the Special Assessment levied as of June 11, 1939, submitted the following report:

"Pursuant to our appointment and a call for a committee meeting by Chairman of the Council Karl L. Schaupp, the Committee met in Sacramento on June 11, 1939, organized and proceeded to work. Since that time all members of the Committee have diligently applied themselves to their assigned task.

"After considerable discussion it became evident that the resolution, under which the Committee was created, was capable of broad and liberal interpretation. It was deemed neither desirable nor feasible to parallel, duplicate, or overlap the function of other existing committees, such as the Public Relations Committee and the Committee on Public Policy and Legislation. Therefore, this Committee recommended to the Council of the California Medical Association that the present Committee on Public Policy and Legislation be designated as the "Executive Group" of the Committee on Public Policy and Legislation, with the accepted powers and duties of an executive group. Since the Committee on Public Health Education interprets its instructions to include the work of the Committee on Public Policy and Legislation in policies regarding our economic and political interests, and also in carrying on the program of education in public health welfare, it was deemed more advantageous to combine the activities of the two committees in this phase of the work. The knowledge, technique, and instrumentalities of the Committee on Public Policy and Legislation are well known and should in no way be displaced by another committee less skilled in that art. Therefore, in order to extend and aid the work of that committee, the Committee on Public Health Education recommended that its budget include an item for allocation to the Committee on Public Policy and Legislation of \$500 monthly, and that any necessary additional requirements be covered by allocations as occasions might arise.

"Public Relations Counsel: The matter of the employment of a public relations counsel was discussed at great length and the names of applicants for this position were

presented and carefully canvassed with the result, that the name of Mr. Ross Marshall has been recommended to this Council as the man possessed of the best qualifications who shall be employed on an annual basis, with the proviso that the contract could be terminated by either party on a sixty-day notice, compensation to be fixed at \$100 per week. The Public Relations Counsel would at all times be working under the direction of the Chairman of the Committee on Public Health Education. In order to secure the greatest amount of information on what might best serve as a guide to the activities of this committee, I addressed myself to Dr. Edwin L. Bruck of San Francisco, Dr. G. W. Walker of Fresno, Dr. John H. Shepard of San Jose, and Dr. Samuel Ayres, Jr., of Los Angeles, all of whom had presented separate resolutions on this subject to the House of Delegates at Del Monte, as recorded in the June issue of the OFFICIAL JOURNAL. (Resolutions 6, 8, 12, and 13)."

The letter sent to each of the sponsors of the four resolutions used by the Del Monte Reference Committee in formulating Substitute Resolution No. 6, was read by Doctor Makinson, and follows:

Dear Doctor:

The House of Delegates Committee on Public Health Education has had two meetings, and finds that the problem before it is much more difficult and complex than appeared at first.

The committee takes a broad view of the subject, and feels that the program should be educational and very complete. It should coordinate plans having to do with:

(a) Education of the profession in relation to its obligation to its own members, patients, to the public and government officials;

(b) Education of the public as to what is being done by medicine for the public health, by appearing at meetings and conventions, newspaper articles, etc.

(c) Education of the public officials in relation to the public health and public welfare; and

(d) The best dissemination of information and medical facts by members of an information bureau.

The purpose of this letter is to confer with you as one of the authors of the resolution which brought this committee into being. We ask your further help by suggestions for our guidance in continuing this work.

A self-addressed envelope is enclosed. We hope that you will kindly send such suggestions as you have, in order that we may have a report for the Council, which will meet on August 5.

Very truly yours,

Committee on Public Health Education,  
By Frank R. Makinson, M. D., Chairman.

"In response to the above letter, replies were received from the sponsors of the four Del Monte resolutions, which the reference committee, of which Doctor Powell was chairman, took into careful consideration, after full discussion with proponents, in preparing Substitute Resolution No. 6, which was adopted by the House of Delegates on May 3.

"The replies received from the sponsors of the resolution referred to indicate that the plans contemplated by the Committee on Public Health Education are in general harmony with the views expressed. The suggestions received will receive careful consideration by our Committee."

Further discussion concerned plans under consideration, as well as of the present and ultimate amounts in the special assessment fund. It was pointed out that only such work could be undertaken as the funds in hand made possible.

Dr. Dewey R. Powell, Chairman of the Reference Committee on Resolutions, who had discussed all the original resolutions with their sponsors when the substitute resolution was prepared, then addressed the Council, explaining the nature of opinions presented to the Reference Committee at Del Monte that led to the drafting of Substitute Resolution No. 6.

Discussion was then had of the employment of a public relations counsel. An interpretation of the words "full-



time public relations counsel," as included in the resolution, was asked of the General Counsel, Mr. Peart.

It was pointed out that the Committee on Public Health Education had interpreted the phrase to mean a man who is engaged in public relations entirely and who is always at its service. The General Counsel stated there are two possible interpretations of the phrase "full time," either of which may be considered a correct interpretation, and accordingly the Committee's construction can be considered proper.

It was moved by Charles A. Dukes, seconded by Frank A. MacDonald, that the interpretation of the Committee on Public Health Education, that the term "full-time public relations counsel" is a man who is engaged in public relations exclusively and who is always at its service, be approved. Carried.

The practice of allocating funds of the Special Assessment Fund to other committees for activities was discussed.

It was agreed that the recommendations of the Committee on Public Policy and Legislation be incorporated in the recommendations of the Committee on Public Health Education for approval by the Council.

The proposed basic science law, as now being drafted by the Committee on Public Relations, was discussed, and it was felt that, after completion of the draft and approval by the Council, it could well be referred to the Committee on Public Health Education for such educational publicity as might be needed.

It was suggested by Doctor Maner that the Committee on Public Health Education might send a bulletin to members of the profession at monthly intervals, advising members of the work of the Committee.

#### 12. Recess.

At this point a recess of the Council was declared, to permit a meeting of the Board of Directors of the Trustees Of The California Medical Association.

#### 13. Call to Order.

The Council was called to order after the recess by Chairman Schapp.

#### 14. Loan from Trustees Of The California Medical Association.

It was moved by Lowell S. Goin, seconded by C. A. Dukes, that the California Medical Association borrow from the Trustees Of The California Medical Association a sum not to exceed \$25,000 at the joint discretion of the President, Secretary, and Chairman of the Auditing Committee.

#### 15. Public Relations Counsel.

Mr. Ross Marshall, who had been interviewed regarding the position of public relations counsel for the Committee on Public Health Education, outlined plans for publicity, as contemplated under the provisions of the resolution of the House of Delegates.

#### 16. Special Assessment.

The Association Secretary reported that approximately 3,650 members had paid the special assessment of \$10.

Discussion was had of method of payment of bills incurred by the Committee on Public Health Education. It was agreed that any expense incurred for work authorized by the Council would be approved for payment upon approval of the Auditing Committee of the California Medical Association without further resubmittal to the Council. It was agreed that expenses should be approved by the Chairman and Secretary of the Committee on Public Health Education before being passed to the California Medical Association Auditing Committee for payment.

On motion duly made, seconded and carried, it was voted that the Council approve the recommendations of the Committee on Public Health Education, including the employment of Mr. Marshall as Public Relations Counsel, and the \$500 allocation to the Committee on Public Policy and

Legislation. Further, that the current bills of the Committee be paid upon approval by the Auditing Committee. Also, that the allocations be paid in regular order, unless a change in policy is involved, in which case recommendations for activities must be resubmitted to the Council, before expense is incurred. Carried.

Discussion was had of the resolution of the House of Delegates with particular reference to the penalty of forfeiture of membership for nonpayment of assessment within sixty days from date of levy, and the constitutional provisions covering loss of membership, as outlined in correspondence with Dr. George Maner, Secretary of the Los Angeles County Medical Association, were commented upon by Legal Counsel Hartley F. Peart.

On motion of Lowell S. Goin, seconded by Louis A. Packard and Charles A. Dukes, the following resolution was adopted:

WHEREAS, The House of Delegates, believing that a program of public education was desirable and essential, adopted a resolution at the last annual meeting held at Del Monte, May 1-4, 1939, authorizing and directing that a special assessment of \$10 be levied upon each active member as of June 1, 1939, and providing that failure to pay such special assessment within sixty days should forfeit membership in the Association; and

WHEREAS, The House of Delegates was fully authorized under the constitution to levy the special assessment, but exceeded its power under the existing constitutional and by-law provisions in applying the penalty of forfeiture of membership for failure to pay the same; and

WHEREAS, The Council believes that each member realizes the necessity of undertaking such educational work, and will loyally support the organization with the necessary funds therefor; now, therefore, be it

*Resolved*, That the Council of the California Medical Association interprets the Constitution and By-Laws to mean that the House of Delegates was clearly within its rights in levying such special assessment, but exceeded its powers in applying a penalty; and be it further

*Resolved*, That the Association secretary forthwith notify the secretary of each component county medical society, and each active member of the Association, of the adoption of this resolution, setting forth the program of the Committee on Public Health Education this day approved, requesting the payment of the special assessment and the coöperation of each member and his suggestions for the committee and the Council.

Doctors Gilman and Best voted no on the adoption of the resolution.

After further discussion of the complications which had arisen, particularly in connection with the penalty clause, as included in the Del Monte Substitute Resolution No. 6, it was agreed that the Committee on Public Health Education, through its chairman, Dr. Frank R. Makinson, should formulate an informative letter, to be sent out from the California Medical Association central office to all members of the California Medical Association. This letter to outline the background, work and plans of the newly created Committee on Public Health Education, and to call attention to the action of the Council in interpreting the penalty clause to have been inserted without authority from the Constitution and By-Laws of the Association, and that it was, therefore, nonoperative.

It was moved by Harry Wilson, seconded by Calvert Emmons, that the Secretary-Treasurer be instructed to notify the county society secretaries that they had authority to collect the assessment, either as a cash payment or a letter of agreement, or part payments, the same to be forwarded to the California Medical Association when the full assessment had been collected.

#### 17. California Physicians' Service.

C. Kelly Canelo, member of the Board of Trustees of the California Physicians' Service, presented a letter from the Executive Committee of the Trustees, asking that the Council give consideration to the possibility of increasing the number of professional members of the California Physicians' Service in certain counties.

T. Henshaw Kelly, member of the Executive Committee of the Trustees of the California Physicians' Service,

ice, stated that the policies of the organization had been printed, and presented copies to the Association for its files, together with descriptive pamphlets of the service offered, and also a copy of the Rules and Regulations.

#### 18. Noon Recess.

At this point a recess for luncheon was taken.

#### 19. Call to Order.

Chairman Schaupp called the Council to order after the noon recess.

#### 20. Basic Science Law.

The Association Secretary reported that, in accordance with the instructions of the Council, the Committee on Public Relations was drafting a Basic Science Act under supervision of a committee in the North, of which Dr. Dwight Wilbur is chairman, and one in the South, of which Dr. Donald Cass is chairman. The final draft would be in the form of an initiative. The Council to decide whether a place for this proposed initiative should be sought on the November, 1940, state election ballot. It was stated that an expression of opinion of members of the Association would be obtained by the Committee on Public Health Education. Mr. Hassard, of the Legal Counsel's office, stated he was assisting Dr. Dwight Wilbur on the legal phases of the proposed Basic Science initiative.

It was suggested that, in the letter that would be sent to California Medical Association members concerning the special assessment, request could be made that members of the Association indicate whether they felt the Association should place a basic science initiative on the state election ballot of November, 1940.

#### 21. Chiropractic Initiative.

The Association Secretary reported on the activities of the Committee on Public Relations in relation to the chiropractic initiative, and presented a letter from the Board of Medical Examiners in which comment was made on the scope of the chiropractic initiative which, by ruling of the Attorney-General of California, will find a place on the special election called by Governor Olson, and to be held during the present year, on November 7, 1939.

It was moved by George Maner, seconded by Charles Dukes, that the Council go on record as being opposed to the chiropractic initiative. Carried.

Further discussion on future course in the matter was then had.

#### 22. Indemnity Defense Fund.

The Association Secretary called the attention of the Council to the financial status of the Indemnity Defense Fund, now under the custodial care of three trustees—Dr. Lemuel P. Adams of Oakland, Dr. Junius B. Harris of Sacramento, and Dr. Howard Morrow of San Francisco. Report was given on the assignments that had been made in favor of the California Medical Association, and also on the nonassignments.

It was moved by A. E. Anderson, seconded by E. Earl Moody, that the General Counsel and the Secretary be authorized to check on the assignments, and then draft a letter to be sent to members of the Indemnity Defense Fund who have not yet signed agreements of assignment. Carried.

#### 23. Appeal of A. T. Martin.

Association Secretary Kress read a letter, dated July 18, 1939, from Albert T. Martin, giving notice to the California Medical Association of his appeal from the decision of the Council of the Los Angeles County Medical Association on charges preferred against him on May 13, 1939.

It was moved by Charles A. Dukes, seconded by A. E. Anderson, that the Council fix the date of the hearing for the appeal of A. T. Martin against the decision of the Los Angeles County Medical Association to be 10 a. m., Satur-

day, October 7, 1939, in the Headquarters Building of the Los Angeles County Medical Association, 1925 Wilshire Boulevard, Los Angeles. Carried.

It was moved by E. Earl Moody, seconded by A. E. Anderson, that the Committee on Conciliation in the hearing of A. T. Martin consist of William W. Roblee (chairman), Calvert L. Emmons, and C. O. Tanner. Carried.

#### 24. Washington State Medical Association.

On motion duly made, seconded and carried, President Dukes was authorized to present greetings from the California Medical Association at the Golden Jubilee of the Washington State Medical Association, and necessary travel expense was approved.

#### 25. California Physicians' Service.

Further discussion was had of the work of the California Physicians' Service.

It was moved by Harry H. Wilson, seconded by E. Earl Moody, that a committee, consisting of Doctors Charles A. Dukes, President; Karl L. Schaupp, Chairman of the Council; and C. Kelly Canelo and T. Henshaw Kelly, members of the Trustees of the California Physicians' Service, represent the California Medical Association at a meeting of the Sacramento Society for Medical Improvement, to aid in furnishing information requested; and that the coöperation of the Sacramento Society for Medical Improvement in the work of the California Physicians' Service be requested. Carried.

It was moved by A. M. Moody, seconded by George D. Maner, that the Council fully endorse the activities of the Board of Directors of the California Physicians' Service and again urge the Board of Trustees of the California Physicians' Service to proceed with all due diligence in writing contracts. Further, that the Council fully appreciated the arduous duties and the immense amount of work which had been accomplished. Carried.

#### 26. County Hospitals.

Discussion was had of the County Hospital situation.

A letter from the Association of California and Western Hospitals was presented.

It was moved by Charles Dukes, seconded by Louis Packard, that the Western Hospital Association be informed that its requests for specific information should be presented in writing, for consideration by the Council or its delegated committees.

It was moved by Louis Packard, seconded by A. E. Anderson, that an appropriation of \$2,500 be made for work in connection with county hospitals. A vote was taken; motion was defeated.

#### 27. Legal Expenses.

It was moved by Lowell S. Goin, seconded by C. A. Dukes, that legal expense of \$500 be authorized in an appeal case. Carried.

#### 28. Press Releases.

The Association Secretary reported that the Committee on Public Relations was sending, weekly, the "American Medical Association News" press releases on advances in scientific medicine, to a selected group of newspapers in California.

#### 29. Municipal License Taxes.

The Central Office reported that several inquiries had been received regarding the legality of taxes on physicians by cities and counties, and that information thereon had been forwarded in accordance with the instruction of the legal department.

#### 30. Nostrums and Quackery.

The Council was advised of the coöperation between the Association and the Federal Trades Commission in efforts to eliminate nostrums and quackery.



### 31. Federal Health Legislation.

The Association Secretary submitted a progress report on the status of proposed Federal health legislation as contemplated in S. B. 1630 and H. R. 6635.

### 32. Woman's Auxiliary.

The proposed amendment to Section 1 of the By-Laws of the Woman's Auxiliary, regarding a nominating committee, was presented.

It was moved by Charles A. Dukes, seconded by A. E. Anderson, that the proposed amendment to the By-Laws of the Woman's Auxiliary be approved. Carried.

The Secretary read the outline of plans and policies of the Woman's Auxiliary as submitted from Mrs. Frederick N. Scatena, President.

On motion duly made, seconded and carried, the program of the State Auxiliary was commended.

It was moved by Charles A. Dukes, seconded by William H. Kiger, that the Committee on Scientific Work arrange for a three-minute address by the president of the Woman's Auxiliary at the first general meeting of the next annual session. Carried.

### 33. Inyo-Mono County Society.

The Council was advised that the charter of the newly organized Inyo-Mono County Medical Society had been forwarded, and that this county unit was now in active operation.

### 34. Needy Physicians.

Axcel E. Anderson reported that, in accordance with the resolution of the House of Delegates adopted at Del Monte, the Committee on Needy Members, consisting of Doctors Peers, Anderson, and Hohl, had been at work and that a meeting of the Committee was desired.

On motion duly made, seconded and carried, transportation expenses were authorized for a meeting of the Committee on Needy Members.

### 35. Next Meeting.

Upon motion, duly made and seconded, it was voted that the Council shall hold its next meeting in Los Angeles on Saturday, October 7, 1939. Hearing of the appeal of Dr. A. T. Martin to be heard at 10 a. m. on that day.

### 36. Adjournment.

There being no further business, the meeting adjourned.

KARL L. SCHAUPP, *Chairman*.

GEORGE H. KRESS, *Secretary*.

## C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

### SOCIALIZED MEDICINE\*

*What Is Best Course for Doctors?*

Pithy Questions Asked

Shall we turn medicine over to politics? Shall we make doctors and surgeons into politicians, or men dependent on politicians? Shall we degrade a great profession and the service it renders? These are some of the questions which the drive for socialized medicine is bringing to the fore. No doubt the profession of medicine is like most other professions in need of improvement. But is improvement to be found in control of medicine by the state?

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman, and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

\* An editorial reprinted from *America's Future*.

American doctors seem to have done a really fine job. They have diminished the general death rate very rapidly as well as the special death rates for such common and heretofore deadly diseases as diphtheria, scarlet fever, yellow fever, smallpox, typhoid, and tuberculosis. In fact, they lead the world in control of such diseases. In the last fifty years the expectancy of life has been more than doubled in our country.

On the other hand, in countries where social medicine has been provided by a state, progress has been slower.

A fair conclusion seems to be that the reforms required in medicine will be achieved more effectively and cheaply, and with far better results measured in human welfare, by keeping medicine out of the hands of politicians who, presumably, would include it, as they have included relief, in a sordid game of patronage, graft, and personal aggrandizement.

One might rather bluntly sum up the question by asking, do the people want to pay from half a billion to a billion more taxes each year in order to have their doctors chosen and their medical service controlled by the kind of men that hang around the courthouse?—Pasadena *Star-News*.

### DOCTORING NOT A TRADE‡

A rebuff anticipated in most informed quarters was administered yesterday to the Government when the Federal District Court of Washington, D. C., ruled out the "trust-busting" charges brought against the American Medical Association. In holding the practice of medicine to be a learned profession and not a trade and, therefore not subject to the Sherman Act, the Court affirmed a view generally held by jurists. Untouched, however, is the basic question whether the Association is on sound ground in its opposition to so-called "group medicine," which formed the peg on which the Government hung its punitive action.

If the decision is appealed and the Supreme Court sustains it, the whole question of voluntary group medicine, as opposed to "state medicine," will go back where it belongs—up to the physicians and the public. In such case there is every reason to believe that a workable system of private group health insurance can be devised along lines laid down in California and elsewhere.

### ARMY DOCTORS ORDERED TO PAY REGISTRATION FEE

Army, Navy, and United States Public Health Service doctors, who have not paid their annual registration fee to this state, are not permitted to have a private practice, Attorney-General Earl Warren ruled today.

Warren, in his opinion, directed to Dr. Charles B. Pinkham, Secretary-Treasurer of the Board of Medical Examiners, stated that Government doctors do not forfeit their medical licenses, but do lose their right to practice within the state sixty days following commencement of the taxable year, January 1, 1939.—San Francisco *Call-Bulletin*, July 13.

### A GLANCE AT THE CALIFORNIA LEGISLATURE'S RECORD

Our 1939 State Legislature closes its second longest session in the state's history without enacting a single piece of major legislation unless the Oil Control bill ranks that rating—and notice is given by its opponents that it will have to stand the test of a referendum vote.

But our legislators might easily have done much worse, as, for instance, yielding to the Compulsory Health Insurance propagandists, seeking to saddle industry with additional burdens for the benefit of an already preferred

‡ From an editorial in the *Los Angeles Times*, July 27, 1939.

class and levying a pay-roll tax that would offer additional premiums for substituting machines for man power.

The premarital health test law is a wise bit of statecraft that will stop the source of much human misery and public expense within the next generation, but its benefits will develop so gradually that the law's authors will get no credit or public recognition. Some skeptics are saying that the law will be evaded by trips across the state line by brides and grooms, but our guess is that when either party finds the other is a bad health risk as a matrimonial partner, then, in a majority of these, some serious thinking will result and in a majority of cases the contemplated marriages will be called off or postponed until a course of medical treatment enables the applicant to pass the test.

Also marriages across the state line will tend to cause a certain amount of local gossip that in this case will serve a useful purpose in the public's behalf.

If by some means the social-economic debit and credit sides of this legislature's work could be scanned a generation hence, we have an idea that its combined score of accomplishments and errors of omission and commission would be higher than that of most of its predecessors.—Watts *Advertiser-Review*, June 29.

### IS MEDICINE A "TRADE" OR A PROFESSION?\*

The Department of Justice has appealed to the United States Circuit Court to reverse the ruling of District Justice Proctor that doctors follow a "learned profession" and the American Medical Association, therefore, is not subject to prosecution under the antitrust laws.

The Attorney-General wants the higher court to rule that the doctors follow a "trade." The offenses charged against the American Medical Association, however, are in effect the operation of a closed shop. If the Circuit Court rules as the Government wishes, the result still would be somewhat embarrassing to an Administration committed to the labor theory of the Wagner Act. If doctors do follow a "trade" and, therefore, are held subject to the antitrust laws, it would be difficult to explain why the theory does not extend to bricklayers or longshoremen.

Yet, regardless of the absurd position in which the Department of Justice has put the Administration, and also of the decisions finally reached in this case, the incident is a reminder to the American Medical Association that its interest lies in working out the problem of medical care for small-income groups. It would be more acceptable to the American Medical Association than the otherwise inevitable compulsory health insurance under political control.

### "DOCTORS AND POLITICS"

The medical profession has cherished almost an egotistical pride that the vocation of medicine should not concern itself with either business or politics. Certainly the average doctor carries no high reputation of being a good business man, and the late years have demonstrated his political success—to say the least, not flattering. Despite the prestige of an intellectual background, he has displayed a naïvete in practical politics that generally strikes amazement. As a consequence in this day of growing governmental expansion he has found himself in a most vulnerable position.

This is particularly perplexing, in view of the fact that the average physician, especially in the smaller communities, exercises individual influence over the minds of the laity, exceeding that of any other profession, not excluding the clergy. Several factors contribute to this end, of which not the least is his ability to instill in the minds of his patients a confidence in his integrity and honesty.

Further, no group is so well organized as the medical profession, practically every doctor belonging to some medical society. Truly an explanation for his impotency in politics rests neither on a personal inferiority nor want of organization power.

The answer is simple: In medical terminology it might be described as "voting asthenia." Votes are the essence of political influence. Endowed by training and occupation with the attributes of leadership and, moreover, in addition, fortified with a well-knit organization through which his strength may be applied, neither the average doctor nor the organization to which he belongs realize this one fundamental fact in politics. Other minority groups are cognizant of this to a realistic degree and endeavor to achieve their political ends by an efficient mobilization of their membership to a voting unit, especially when individuals or principals that concern their welfare are presented to the various elections. As a consequence these groups command the respect, and, significantly, their favor is solicited by those who aspire to public office.

To graphically portray this fact, one has only to observe the reaction of prospective candidates in their political attitude toward trade-unionism, as compared to that manifested toward the medical profession. Witness how difficult for the medical school to obtain sufficient money even to retain its accredited standing despite the almost unanimous backing by the doctors of the state for the school.

Much ado has been raised by the doctors because of growing governmental intrusions in their practice. "The Lord helps those who help themselves." Selfishness rather than altruism is actually the guiding philosophy of the day, and the sooner the medical profession, as a class, realizes this fact and become conscious of their strength as a potent political entity the easier the path of medicine will be. So long as doctors and their organizations assume a passive *laissez-faire* attitude in the governmental affairs of their communities, their political status will continue, as the saying goes, "behind the eight ball."—*Oklahoma County Medical Society Bulletin*.

### EPILEPSY: A REPORTABLE DISEASE\*

With the increase of mechanization in this century, epilepsy has taken on a new significance in the social order. Before the time of the automobile the epileptic was seldom a menace to others and but infrequently injured himself. Now that everyone is an automobile driver, real or potential, the situation is vastly changed. It has become incumbent upon practitioners of medicine to protect the victim of a convulsive state from himself as well as to protect the interest of others who might be the victims of his acts.

It is an interesting phenomenon, that patients who have epilepsy will deny the presence of the disorder, even to the point of swearing falsely in an application for a driver's license. When one questions them closely as to the reason for their denying the disease in their application, they give some such reply as "mine is not epilepsy, it is stomach disorder." This is a perfectly understandable reaction because of the odium which is usually attached to the malady by uninformed persons, and the repulsiveness of the convulsive attacks when viewed by the uninitiated. One cannot but have the greatest of sympathy for these unfortunate victims; on the other hand their own safety must be safeguarded as well as that of others. . . .

The Act, recently signed by the Governor, will go into effect September 3. It will thereupon become the duty of every practicing physician to report every patient who has epilepsy to the local health officer, who will send the report to the State Department of Public Health, and it will, of course, be made available for the Motor Vehicle Department. Failure to report will constitute a misdemeanor.

\* From an editorial in the *San Francisco Chronicle*, August 2, 1939.

\* See also comment on page 146.



## CALIFORNIA PHYSICIANS' SERVICE\*†

### Important Announcement

With the signing of a contract by the President of California State Employees' Association and the President of California Physicians' Service on August 14, 1939, California's five thousand professional members of California Physicians' Service have started active participation in California's voluntary plan to meet the increasing cost of medical care among people of moderate incomes. This contract provides a large group of people who may become patients to be treated in connection with the Service. The California State Employees' Association has nearly nineteen thousand members and as many possible beneficiary members of California Physicians' Service.

Before any active solicitation of individuals by the staffs of the Hospital Associations and the staff of California Physicians' Service, a flow of mail came in from state employees in all parts of the State, bearing their applications and dues for health coverage—in response to an article describing the offering in their monthly publication. Most of the sixty-six Chapters of California State Employees' Association are represented in this response, and all sixty-six Chapters will no doubt respond in still greater numbers after representatives speak directly to them. Arrangements have been made for representatives of California Physicians' Service to meet with all Chapters and to present the program in detail and to answer any questions that may arise.

In San Francisco and the Bay area, in Los Angeles County, and in Sacramento, the California State Employees' Association has the greatest number of members. San Francisco and the Bay area have ten Chapters with a total membership of 3,665. Los Angeles County has twelve Chapters with a total membership of 3,189. And Sacramento has six Chapters with a total membership of 4,660. In these three districts is about half the entire membership of the Association, and the other half is divided among the thirty-nine Chapters that are scattered throughout the whole area of California.

When a good proportion of the membership of California State Employees' Association becomes beneficiary members of California Physicians' Service, this group will form an excellent one upon which to build statistical and experience data. The geographic distribution, the variance of occupations, and the relative earnings of the members appear typical of any group of this size. The large majority of almost any group of employees with a common employer are earning less than \$3,000 a year. Research indicates that over 80 per cent of the population earns under that amount, so any plan which is formed primarily to furnish a service to people of low incomes is formed to serve the majority of any cross section. California Physicians' Service has been organized to furnish medical service to people of low incomes and welcomes any group that will bring to it steady wage-earners of moderate incomes who can make the monthly payments regularly. With groups of this kind, experience spread can be accomplished.

A second purpose for which California Physicians' Service was organized was to provide a means by which the doctors might be paid for their services to people of low incomes. Medical and surgical fees have always been based on (1) the magnitude and responsibility involved in the service, and (2) the ability of the patient to pay. At the monthly rates to be paid by the beneficiary members—\$2 and \$2.50 per member—it is expected that California Physicians' Service will pay its professional members appropriate fees for people with incomes of \$1,200 to \$1,500 per year. But there is no reason why people whose

incomes are higher should not protect themselves against part of their hospital and medical expenses. A beneficiary member whose income is over \$3,000 will receive his hospital care the same as any other member and the same amount will be paid by California Physicians' Service to his doctor as would be paid in the case of a member earning less than \$3,000. This will contribute considerably toward the total fee agreed upon by him and his doctor. The doctor will charge the patient for the difference between the fee agreed upon and the amount paid by California Physicians' Service.

Any doctor holding a certificate of professional membership may treat any patient holding a beneficiary membership. Among the state employees, beneficiary membership certificates will be of two kinds, because the master contract with California State Employees' Association allows the members to choose either the deductible or the full coverage plan—that is, either the plan for \$2 a month which allows complete medical and hospital care except that the patient is to be billed for the first two calls upon the doctor in any one illness directly by the doctor, or the plan for \$2.50 a month which allows complete medical care to be provided by California Physicians' Service, limited only by the rules and regulations to be sent to each professional member.

To assist Dr. Morton R. Gibbons, Sr. (Medical Director of California Physicians' Service) and Dr. E. Vincent Askey (Assistant Medical Director) in coordinating medical service rendered to the beneficiary members a number of the professional members have accepted appointments as deputy medical directors in twenty-one administrative districts of California Physicians' Service. These doctors may be called upon at any time for decisions regarding the extent of medical care to be allowed under the plan. They will advise the professional members in any interpretations of contract provisions, of the rules and regulations, and of unit values on the fee schedule.

#### DEPUTY MEDICAL DIRECTORS

*District No. 1.* (San Francisco, San Mateo, and Marin counties) W. H. Winterberg, M.D.

*District No. 2.* (Part of Los Angeles County). Appointment to be announced.

*District No. 3.* (Alameda and Contra Costa counties) Daniel Crosby, M.D.

*District No. 4.* (Part of Los Angeles County) Richard J. Morrison, M.D.

*District No. 5.* (Santa Clara and Santa Cruz counties) Fred S. Ryan, M.D.

*District No. 6.* (Part of Los Angeles County) Morrill L. Illsley, M.D.

*District No. 7.* (Lake, Mendocino, Napa, Solano, and Sonoma counties) Henry S. Rogers, M.D.

*District No. 8.* (Part of Los Angeles County) Calvin A. Lauer, M.D.

*District No. 9.* (Del Norte and Humboldt counties). Appointment to be announced.

*District No. 10.* (Orange County) Merrill Hollingsworth, M.D.

*District No. 11.* (Fresno, Inyo, Kings, Madera, Mariposa, Merced, Mono, and Tulare counties) E. R. Scarborough, M.D.

*District No. 12.* (San Luis Obispo, Santa Barbara, and Ventura counties) Benjamin Bakewell, M.D.

*District No. 13.* (Alpine, Amador, Calaveras, San Joaquin, Stanislaus, and Tuolumne counties) R. S. Chapman, M.D.

*District No. 14.* (Imperial and San Diego counties) Hall G. Holder, M.D.

*District No. 15.* (Eldorado, Nevada, Placer, Sacramento, Sierra, Sutter, Yuba counties) Robert A. Peers, M.D.

*District No. 16.* (Kern County) L. A. Packard, M.D.

\* Address: California Physicians' Service, 220 Montgomery Street, San Francisco. Telephone: EXbrook 3212. Manager, Mr. Allen Widenham.

† For additional C.P.S. information, see also, on page 206.

*District No. 17.* (Butte, Colusa, Glenn, and Yolo counties) Daniel Moulton, M. D.

*District No. 18.* (Riverside and San Bernardino counties) P. M. Savage, M. D.

*District No. 19.* (Shasta, Siskiyou, Tehama, and Trinity counties) F. L. Doane, M. D.

*District No. 20.* (Monterey and San Benito counties) Garth Parker, M. D.

*District No. 21.* (Lassen, Modoc, and Plumas counties) Fred J. Davis, Sr., M. D.

### Informative Bulletins

#### BULLETIN I: C. P. S.

San Francisco, July 25, 1939.

#### *To All Professional Members of California Physicians' Service:*

Medical service has been furnished on monthly payment plans of many kinds, but never before on a *state-wide* scale by the medical profession of the state, with help and co-operation of a generous-spirited group outside the profession representing those who are to be served or bringing special knowledge and skills required.

It has been done successfully before in more restricted areas by an organized medical profession, and the officers of plans which have pioneered the way in Seattle and elsewhere in the Pacific Northwest have generously given us the benefit of their invaluable experience. But the fact that we are establishing for the first time a unified state-wide plan brings many problems for the solution of which experience does not exist.

Those of us who have been charged with initial responsibility have no illusion that we have found in advance all the answers. Fortunately we are not "writing a bill" to be frozen into law. Provision has been made so that the methods of operation as at first established may be changed when and as experience dictates.

Your trustees have foremost in mind some fundamental considerations:

1. *Coöperation.*—Success depends upon *coöperation* by all of us. There must be close and constant contact between the business offices, the medical directors, and the practicing physicians. Frequent informative letters will be sent to professional members. This is the first of such letters. To save mail expense they will be sent whenever possible with other material forwarded in the course of business. This communication is accompanying membership certificates, thereby saving \$150 in postage alone.

Doubtless, hundreds of inquiries will be received about specific points. In so far as possible, may we, without offending the inquirers by our apparent impersonality and to minimize expense, assemble and answer such inquiries by general letters so that everyone may have the information?

2. *Paper Work.*—Your trustees will try to keep "paper work" down to a minimum and make it simple. In order to make the constant actuarial studies absolutely necessary for safe and fair operation of the plan some reports are necessary. It will probably surprise all of us to find how different our experience proves to be with beneficiary members of different occupation, age and sex groups, those who are single or married, who have or do not have children, who live in city, town, or country, etc. Please be assured that information requested on report forms is for such definite purposes and when collected and translated into group experience will almost certainly directly affect the future value of the "unit" of compensation paid for the work we do.

3. *Safety.*—We will have no tax funds upon which to call to make up deficits. This plan will serve well neither us, our patients nor the state generally unless it fairly pays its way. All experience now available indicates that those beneficiary members who are in groups (employed

or otherwise) can be served most safely and with least administrative cost. We shall at first, therefore, accept beneficiary members only in groups. (We believe we can safely accept groups of five individuals or more, provided all the members of the smaller groups come into the plan. As the size of the groups increases, it will not be necessary to require that as many as 100 per cent become beneficiary members.) When we have a large group membership with the organization running smoothly and "overhead" well down, we can and should then accept a reasonable number of families of members and of unattached individuals and find, from experience, what it costs to serve them—information apparently nowhere available at this time.

4. *Economy of Operation.*—Money spent for "overhead" cannot be paid out for services to our patients. Administration costs will necessarily be relatively high during organization and until a very considerable number of beneficiary members are making monthly contribution. During the early months of operation, this will almost certainly make the value of the unit lower than we should like to see it. Eventually we believe "overhead" can be brought down to a very low percentage of monthly payments received.

#### STATE OF AFFAIRS

To date 4,978 physicians are enrolled as professional members. They are distributed in every county in the state (except two where there are no physicians practicing). This is overwhelming evidence that California Physicians' Service has the support of the profession.

1. *List of Professional Members.*—The list is printed, with names arranged alphabetically and by counties and without addresses, telephone numbers or type of practice. The list is not intended to be an advertisement. It is expected that patients will select their physicians as they do now and, having selected a doctor, refer to the list to see that he is a professional member of California Physicians' Service. The list will be mailed to you shortly, with forms and directions concerning their use.

2. *Contracts.*—Forms of beneficiary members' contracts have been drawn, studied, modified and remodified. What we hope are final forms for beginning operations have been printed and are now ready for use.

3. *Hospital Service.*—Hospitalization will be furnished as contemplated by the Insurance Association of Approved Hospitals, Intercoast Hospitalization Insurance Association, and Associated Hospital Service of Southern California. Groups of beneficiary members may now obtain protection against medical and hospital costs on a uniform state-wide basis. Definite amount of each member's monthly payment will go to the hospital associations for this purpose (this amount subject to adjustment based on experience). The remainder of the member's monthly payment will go to California Physicians' Service for professional services and administration.

4. *Fee Schedule.*—The fee schedule for professional services is intended to serve as a scale of *relative values* of various services and is *not a statement of the dollar value of any service*. It is set up in "units." One unit represents the value of one ordinary "repeat" office visit, whatever the value of an office visit may be at any time, under any circumstances. If a particular service is given a value of twenty units, that service is regarded as worth twenty times as much as an office visit.

A tentative fee schedule has been formally adopted. It is apparent that no fee schedule of relative values could possibly be established which will meet with the unanimous approval of the professional members. Your trustees earnestly beg the tolerance of the members. Please remember again that the fee schedule is subject to prompt change. It will be altered as experience proves desirable. Eventually, by experience, conference and negotiation among ourselves, we can arrive at a schedule which will be workable and fair.



The fee schedule has been approved by the trustees and will be reproduced shortly in sufficient copies so that copies will be in the hands of the deputy medical directors for reference in each community. It is not proposed to immediately distribute it generally, due to the probable necessity of revision and the difficulty and expense of maintaining revisions.

5. *Report Forms.*—All forms necessary for operation have been drafted, discussed with the actuary and accountant, and are now being printed. The necessary forms will be placed in your hands ahead of need. A beneficiary member appearing for treatment will have a form which will identify him as a California Physicians' Service beneficiary member. Detailed directions concerning your use of this and other forms will be found in the Rules and Regulations which you will receive shortly. Every effort is being made to limit necessary paper work to the minimum. Your careful coöperation in handling the report forms will pay a real dividend in the smooth operation of the plan to the advantage of all of us.

6. *Rules and Regulations.*—"Rules" for operation of the plan have been adopted in initial form. For convenience they will be printed in connection with the forms referred to above.

7. *Districts.*—The state has been divided into twenty administrative districts (subject to revision later if need be) and steps are now being taken to effect the appointment of deputy medical directors and to organize districts so that professional members may elect a permanent administrative group in October.

8. *Rates.*—For information of the members, the initial rates have been set at \$2.50 per person per month for medical, surgical, and hospital service for "full coverage," or \$2 per person per month if the beneficiary member elects to pay for the first two visits (office, home, or hospital) required for any one sickness or injury.

Your trustees beg that you will coöperate and be patient under the goad of the many petty irritations that may arise as the plan begins operation. Time will be needed to determine ways of facilitating administration and to iron out wrinkles not now apparent. There will be some five thousand of us concerned in the plan, and minor inquiries and personal objections cost as much time and money to handle as major ones do. Constructive comment will always be welcome.

#### TRUSTEES CALIFORNIA PHYSICIANS' SERVICE

Ray Lyman Wilbur, M. D., *President*

C. Kelly Canelo, M. D., *Vice-President*

Lowell S. Goin, M. D., *Vice-President*

Alson R. Kilgore, M. D., *Secretary-Treasurer*

T. Henshaw Kelly, M. D., *Assistant Secretary-Treasurer*

Samuel Ayres, Jr., M. D.

W. Earl Mitchell, M. A.

Glenn Myers, M. D.

Right Reverend Thomas J. O'Dwyer

#### BULLETIN II: C. P. S.

Subject: Election of Administrative Members

San Francisco, July 27, 1939.

*To All Professional Members of California Physicians' Service:*

The first annual meeting of administrative members of California Physicians' Service is set by the By-Laws for October 14, 1939. Prior to that time it is necessary that administrative members be elected from each district to serve the terms provided in the By-Laws. Two administrative members are to be elected from each administrative district. Districts, by counties, are outlined below:

District No. 1. San Francisco, San Mateo, and Marin counties.

District No. 2. Los Angeles.

District No. 3. Alameda and Contra Costa counties.

District No. 4. Los Angeles.

District No. 5. Santa Clara and Santa Cruz counties.

District No. 6. Los Angeles.

District No. 7. Mendocino, Sonoma, Lake, Napa, and Solano counties.

District No. 8. Los Angeles.

District No. 9. Humboldt and Del Norte counties.

District No. 10. Orange County.

District No. 11. Fresno, Merced, Mariposa, Mono, Inyo, Madera, Kings, and Tulare counties.

District No. 12. San Luis Obispo, Santa Barbara, and Ventura counties.

District No. 13. San Joaquin, Amador, Alpine, Stanislaus, Calaveras, and Tuolumne counties.

District No. 14. San Diego and Imperial counties.

District No. 15. Sacramento, Sutter, Yuba, Sierra, Nevada, Placer, and Eldorado counties.

District No. 16. Kern County.

District No. 17. Glenn, Butte, Colusa and Yolo counties.

District No. 18. Riverside and San Bernardino counties.

District No. 19. Siskiyou, Trinity, Shasta, and Tehama counties.

District No. 20. San Benito and Monterey counties.

District No. 21. Modoc, Lassen, and Plumas counties.

(Note: Los Angeles County is divided into four districts. For boundaries consult Los Angeles office, 448 South Hill Street.)

The procedure of election will be, first, nomination, and then election by mail ballot. Nominations may be made in writing by any five professional members within a district. These nominations should be forwarded to the office of the secretary of the corporation, 220 Montgomery Street, San Francisco, not later than August 20, 1939.

After nominations have been made in this way, a mail ballot will be prepared and sent to all professional members.

ALSON R. KILGORE, M. D.,

*Secretary-Treasurer.*

#### California State Employees Get California Physicians' Service†

The California State Employees' Association, which has 19,000 members, and the California Physicians' Service last night formally signed a contract by which hospital service will be provided for a fee of \$2.50 a month each.

The plan is supported by 5,000 physicians practicing in every county of the state, and hospital care will be provided through the Associated Hospital Service of Southern California, the Insurance Association of Approved Hospitals of the San Francisco Bay District, and the Intercoast Hospitalization Insurance Association covering the central valley.

Employee groups whose members receive an annual family income of \$3,000 or less are eligible to participate in the program.—*San Francisco Chronicle*, August 15.

#### CALIFORNIA LEGISLATURE: SESSION OF 1939

##### Report on Proposed Laws Having Relation to the Public Health and Medical Practice\*

##### Board of Health

A. B. 1215, by Rosenthal, by request (referred to Committee on Public Health and Quarantine). Places Director of Public Health in charge of Department and gives him all of duties of State Board of Public Health.

A. B. 1216, by Rosenthal, by request (referred to Committee on Public Health and Quarantine). Establishes State Board of Public Health to act solely in advisory capacity. Fixes salary of Director at \$10,000 per year.

A. B. 2107, by Dills (referred to Committee on Governmental Efficiency and Economy). Identical with A. B. 1215.

† See also, press item on page 198.

\* This report submitted by the Public Health League of California, Ben Read, Secretary. For editorial comment, see page 145. Other comment, on page 199.

A. B. 2108, by Dills (referred to Committee on Governmental Efficiency and Economy). Identical with A. B. 1216.

S. B. 1054, by Kenny and Shelley (referred to Committee on Public Health and Quarantine). Identical with A. B. 1215.

S. B. 1055, by Kenny and Shelley (referred to Committee on Public Health and Quarantine). Identical with A. B. 1216.

*All of the above were killed in committee.*

S. B. 1044, by Nielsen (referred to Committee on Public Health and Quarantine). Requires health officers to report epilepsy.

*Passed the Legislature and signed by the Governor.*

#### Chiroprody

S. B. 1083, by Jespersion (referred to Committee on Public Health and Quarantine). Requires one year of prechiropractical work of college grade.

*Passed the Legislature and signed by the Governor.*

S. B. 1084, by Jespersion (referred to Committee on Public Health and Quarantine). Relates to advertising.

*Died in committee.*

#### Chiropractors

A. B. 2176, by Reaves (referred to Committee on State Colleges). Relates to courses of instruction at Fresno State College, provides for instruction in advanced chiropractic and in school nursing, and makes an appropriation.

A. B. 2177, by Reaves (referred to Committee on Insurance). Amends Compensation Act to provide employee entitled to select without restraint anyone licensed to treat in any manner the type of injury which he has sustained.

*Above bills killed in committee.*

#### Codes

S. B. 657, 658, and 659, by Mixer and Foley (referred to Committee on Public Health and Quarantine). Establishes a Health and Safety Code.

*Passed the Legislature and signed by the Governor.*

#### Compensation Act

A. B. 958, by Tenney (referred to Committee on Insurance). Amends Compensation Act. Relates to inspection of medical records.

A. B. 1520, by Atkinson (referred to Committee on Insurance). Relates to inspection of x-ray films, reports, hospital and doctors' records, clinical laboratory and other tests.

A. B. 1727, by Pelletier (referred to Committee on Judiciary General). Relates to inspection of hospital records.

*All of the above were killed in committee.*

#### Dentistry

A. B. 1708, by Johnson (referred to Committee on Education). Relates to absence of pupils from school for dental services.

A. B. 1766, by Cronin (referred to Committee on Medical and Dental Laws). Relates to applicants for licenses to practice dentistry.

A. B. 1826, by Hugh M. Burns and Cronin (referred to Committee on Medical and Dental Laws). Relates to registration of dentists and dental hygienists.

A. B. 2189, by Cronin (referred to Committee on Medical and Dental Laws). Relates to qualifications for practice of dentistry.

*All of the above passed the Legislature and were signed by the Governor.*

S. B. 989 and S. B. 990, by Carter (referred to Committee on Public Health and Quarantine). Relates to Dental Corporation of California, its organization, membership, government and powers, the practice of dentistry and dental hygiene.

*Died in committee.*

#### Dispensing Opticians

A. B. 516, by Cronin (referred to Committee on Medical and Dental Laws). Places dispensing opticians under license and regulation of State Board of Medical Examiners.

*Passed the Legislature and signed by the Governor.*

A. B. 1666, by Sawallisch (referred to Committee on Medical and Dental Laws). Places persons engaged in and training for the vocation of optical dispensing under control of the State Board of Optometry.

*Killed in committee.*

#### Health and Hospital Insurance

A. B. 610, by Kepple (referred to Committee on Judiciary Codes). Relates to hospitals eligible to enter into contracts under nonprofit hospital service plans.

*Passed the Legislature and signed by the Governor.*

A. B. 1573, by Hugh M. Burns (referred to Committee on County Government). Relates to care and treatment at county expense of persons requiring the same.

*Died in committee.*

A. B. 1712, by Johnson (referred to Committee on Insurance). Relates to nonprofit hospital service plans.

*Passed the Legislature and signed by the Governor.*

A. B. 2103, by Desmond (referred to Committee on Insurance). Authorizes governing bodies of counties, school districts, municipal corporations, political subdivisions, public corporations and other public agencies of the State of California to adopt a system of group life, health and accident insurance and health services for the benefit of officers and employees and to deduct from the compensation thereof the premiums upon such insurance.

S. B. 1171, by Nielsen (referred to Committee on Governmental Efficiency). Authorizes the State Controller to make rules and regulations governing pay roll deductions under plans of group insurance and/or medical or hospital services, or both, approved by the Director of Finance, and to be furnished to officers and employees of the State of California.

*Above bills passed the Legislature and were signed by the Governor.*

A. B. 2172, by Rosenthal, Atkinson, Dills, Gilmore, Cassidy, Kilpatrick, King, Del Mutolo, Collins, Hawkins, Gilbert, Gallagher, O'Day, Richie and Voigt (referred to Committee on Unemployment). Provides a system of health insurance within the system of unemployment reserves.

#### Defeated on Floor of Assembly

S. B. 1128, by Kenny and Shelley (referred to Committee for Social Security, Pensions and Relief). Identical with A. B. 2172.

*Died in committee.*

A. B. 2494, by Garland (referred to Committee on Insurance). Provides for regulation of insurance against the need for medical and hospital service.

A. B. 2501, by Garland (referred to Committee on Insurance). Companion measure to A. B. 2494.

S. B. 548, by Hollister (referred to Committee on Insurance). Relates to nonprofit hospital and health service plans.

S. B. 551, by Hollister (referred to Committee on Labor and Capital). Amends Labor Code to provide Statewide system of health insurance.

*Above bills were killed in committee.*

#### Hospitals

A. B. 2499, by Garland (referred to Committee on Social Service and Welfare). County Hospital Bill.

*Died in committee.*

#### Health Officers

A. B. 444, by Evans (referred to Committee on Public Health and Quarantine). Relates to city and county health officers.

A. B. 2367, by Hugh M. Burns (referred to Committee on County Government). Relates to powers and duties of county health officers.

*Above bills passed the Legislature and were signed by the Governor.*

#### Insane

S. B. 219, by Kenny (referred to Committee on Social Security, Pensions and Relief). Relates to persons mentally ill.

S. B. 526, by Kenny (referred to Committee on Hospitals and Asylums). Relates to private institutions for mentally ill or deranged persons.

*Passed the Legislature and signed by the Governor.*

#### Narcotics

A. B. 2606, by O'Day (referred to Committee on Medical and Dental Laws). Amends the Health and Safety Code relating to prescription of narcotics and dangerous drugs.

*Passed the Legislature and signed by the Governor.*

#### Naturopathy

A. B. 1203, by Voigt, Gilbert, Pelletier, Reaves and Richie (referred to Committee on Medical and Dental Laws). Regulates the persons engaged in and training for the practice of naturopathy and the schools instructing persons to engage therein.

*Died in committee.*

#### Nursing

A. B. 563, by Fulcher (referred to Committee on Medical and Dental Laws). Practical Nursing Act.

A. B. 564, by Fulcher (referred to Committee on Governmental Efficiency and Economy). Relates to the Board of Practical Nurse Examiners.

*Died in committee.*

A. B. 619, by Cronin, Hugh M. Burns, Poulson, Meehan, Field, Call, Robertson, Sawallisch, Allen, Redwine, Daley and Eleanor Miller (referred to Committee on Medical and Dental Laws). Establishes Board of Nurse Examiners.

A. B. 620, by same authors as A. B. 619 (referred to Committee on Medical and Dental Laws). Nursing Practice Act.

*Passed the Legislature and signed by the Governor.*



**Optometry**

A. B. 1720, by Redwine (referred to Committee on Medical and Dental Laws). Extends rights of registered optometrists.

*Killed in committee.*

**Osteopathy**

A. B. 2346, by Daley (referred to Committee on Education). Relates to health and development certificates.

*Died in committee.*

**Premarital and Prenatal Examinations**

S. B. 173, by Fletcher, Biggar, and Kenny (referred to Committee on Public Health and Quarantine). An act to provide for the protection of unborn children and the public health by providing for premarital examinations for syphilis and providing penalties for violations of the provisions thereof and providing an appropriation for the administration of this act.

S. B. 329, by Fletcher (referred to Committee on Public Health and Quarantine). An act relating to vital statistics and making an appropriation therefor.

A. B. 493, by Hugh M. Burns, Garland, Corwin, Kepple, Dilworth, Kilpatrick, Redwine, Knight, Heisinger, Miss Miller, and Mrs. Daley (referred to Committee on Medical and Dental Laws). An act providing for the protection of unborn children and the public health by requiring examinations of pregnant or recently delivered women for syphilis, providing penalties for the violation of the provisions thereof, and providing an appropriation for the administration of the act.

*Above bills passed by the Legislature and signed by the Governor.*

**Public Medical Care**

A. B. 1874, by Del Mutolo (referred to Committee on Medical and Dental Laws). An act to promote the public health by providing for public medical care, including medical, dental, nursing, hospital, pharmaceutical and therapeutic appliance care for needy persons; providing for the apportionment of the cost of such medical care between the State and the counties and providing for the administration and enforcement thereof.

*Died in committee.*

**Sales Tax**

Assembly Bills 10 and 11, by Rosenthal (referred to Committee on Ways and Means). Exempts medicines.

Assembly Bills 33 and 34, by Houser (referred to Committee on Revenue and Taxation). Exempts medicines.

Assembly Bills 235 and 236, by Redwine (referred to Committee on Revenue and Taxation). Exempts orthopedic supplies.

*Above bills died in committee.*

**X-Ray**

S. B. 1183, by Carter (referred to Committee on Public Health and Quarantine). An act to safeguard the public health, to regulate the use of x-ray and x-ray appliances in connection with the examination of the jaws, teeth, alveolar process, gums and the immediate adjacent structures of living human beings, as an aid to the diagnosis and treatment of diseases and lesions pertaining thereto, to regulate the use, ownership and possession of x-ray appliances for said purposes; providing for the licensing of persons operating dental x-ray laboratories and x-ray appliances and setting up qualifications for such use.

*Died in committee.*

**Miscellaneous**

A. B. 1815, by Robertson. An act relating to the physical examination of the emergency hospital and medical care for students enrolled in the State colleges.

*Passed by the Legislature. Vetoed by the Governor.*

A. B. 2436, by Call. An act relating to scientific and surgical equipment.

*Passed by the Legislature and signed by the Governor.*

A. B. 2585 and A. B. 2586, by Allen, by request. An act relating to regulation and government of those engaged in the practice of massage and electrophysio-hydrotherapy.

*Killed in committee.*

A. B. 2795, by Donnelly. An act relating to the regulation and production and distribution of serums, vaccines, bacterial cultures and viruses.

*Passed by the Legislature and signed by the Governor.*

**Medical Practice Act**

A. B. 437, by Doyle (referred to Committee on Medical and Dental Laws). Relates to signs and advertisements in connection with the practice of medicine.

*Passed the Assembly and Senate. Vetoed by the Governor.*

A. B. 438, by Doyle (referred to Committee on Medical and Dental Laws). Relates to disciplinary proceedings within the chapter on medicine.

*Passed the Assembly. Killed in Senate committee.*

A. B. 449, by Gannon (referred to Committee on Medical and Dental Laws). Relates to citizenship of applicants to practice medicine.

*Passed the Assembly and Senate. Vetoed by the Governor.*

A. B. 468, by Cronin (referred to Committee on Medical and Dental Laws). Relates to the practice of medicine and surgery by graduate students and internes.

*Passed the Assembly and Senate and signed by the Governor.*

A. B. 469, by Cronin (referred to Committee on Medical and Dental Laws). Relates to false and untrue statements by licensed persons.

*Passed the Assembly and Senate and signed by the Governor.*

A. B. 470, by Cronin (referred to Committee on Medical and Dental Laws). Relates to peace officers.

*Passed the Assembly and Senate and signed by the Governor.*

A. B. 447, by Massion (referred to Committee on Medical and Dental Laws). Relates to unprofessional conduct in the practice of medicine and use of title "Doctor" or "Dr."

*Passed the Assembly and Senate and signed by the Governor.*

A. B. 478, by Johnson (referred to Committee on Medical and Dental Laws). Relates to the scope of practice of medicine and surgery permitted under a drugless practitioner's certificate.

*Passed the Assembly and Senate. Vetoed by the Governor.*

A. B. 484, by Kepple (referred to Committee on Medical and Dental Laws). Relates to remedies for the enforcement of the chapter on medicine. Injunction may be granted.

*Died in the Assembly.*

A. B. 496, by Massion (referred to Committee on Medical and Dental Laws). Relates to the use of the term "drugless practitioner."

*Passed the Assembly and Senate and signed by the Governor.*

A. B. 511, by Johnson (referred to Committee on Education). Relates to colleges and seminaries of learning.

*Passed the Assembly and Senate and signed by the Governor.*

A. B. 1505, by Gannon (referred to Committee on Medical and Dental Laws). Relates to unprofessional conduct.

*Passed the Assembly and Senate. Vetoed by the Governor.*

A. B. 2315, by Gilmore (referred to Committee on Medical and Dental Laws). Relates to the raising of educational qualifications of the drugless practitioner.

*Passed the Assembly and Senate and signed by the Governor.*

A. B. 2745, by Johnson, by request (referred to Committee on Medical and Dental Laws). Relates to a review of disciplinary action of the Board of Medical Examiners.

*Died in Assembly committee.*

S. B. 234, by Quinn (referred to Committee on Public Health and Quarantine). Relates to graduates of Canadian medical schools.

*Passed the Senate and Assembly and signed by the Governor.*

S. B. 913, by Hollister (referred to Committee on Judiciary). Relates to sale of degrees, certificates and transcripts connected with the treatment of the sick or afflicted.

*Passed the Senate and Assembly and signed by the Governor.*

S. B. 1182, by Carter (referred to Committee on Governmental Efficiency). Adds to Business and Professions Code, relating to judicial review.

*Died in Senate committee.*

## COUNTY SOCIETIES

**PLACER COUNTY**

The Placer County Medical Society held a luncheon meeting at the Tahoe Tavern, Lake Tahoe, on July 29, with President William M. Miller presiding. Thirty-one members and visitors were present, among them being the following guests: Dr. Charles A. Dukes, President of the California Medical Association; Dr. George G. Reinle, past president of the California Medical Association and past vice-president of the American Medical Association, both of Oakland; Dr. George H. Kress of San Francisco, past president of the California Medical Association, and now the Association Secretary, and editor of CALIFORNIA AND WESTERN MEDICINE; Dr. Frank MacDonald of Sacramento, Councilor for the Eighth District; Dr. C. V. Thompson of Lodi; the Honorable Jerrold L. Seawell of

Roseville, Senator from the Seventh District; and the Honorable Allen G. Thurman of Colfax, Assemblyman from the Sixth District.

After a very delightful luncheon, served amid some of the most beautiful surroundings to be found anywhere in western North America, President Miller introduced Senator Seawell, President pro tem of the California State Senate, who, in his address, stated that, in ten years' experience in the Legislature, he had noted that things for which the doctors stood were in the interest of public health, and those measures they were against were bills which threatened to lower the standards of medicine or to jeopardize the health of the public. In his opinion, therefore, members of the medical profession were most unselfish in their efforts to influence legislation.

Assemblyman Allen G. Thurman was then called upon and gave a résumé of some of the bills affecting the profession and the public health which came before the Assembly. It was very evident that both of these men have their feet well on the ground and are for sane and safe legislation when such legislation affects in any way the health of the public.

The President then called upon Dr. Frank MacDonald of Sacramento, the newly elected councilor for the Eighth District, who made a short address in which, among other things, he assured the members of the Society that he will be ready at all times to be of assistance when called upon, and will represent their interests before the Council to the best of his conscience and ability.

Dr. Charles A. Dukes, who brought to the Placer County Medical Society greetings from the California Medical Association and its officers, then spoke of *The Objectives of the California Medical Association*; and among other things, he discussed:

The willingness of Organized Medicine to take care of everyone, irrespective of his financial situation;

The efforts of Organized Medicine to raise the standards of practice, and to maintain those standards at the highest level; and the

Budgeting of cost in medical care. Under this heading Doctor Dukes analyzed compulsory health insurance and voluntary health insurance, as exemplified by the California Physicians' Service, and a combination of voluntary insurance and governmental subsidy for the extremely low-income group.

Dr. George G. Reinle, Chairman of the Committee on Public Relations, spoke on *Medical Defense*. He dwelt upon the underlying causes of the increase in malpractice suits, naming in detail six of the principal reasons. Doctor Reinle also discussed the Oregon State Medical Society's plan and the so-called New Haven plan. He pointed out that California physicians paid the highest premium rate of any in America, with the exception of the medical profession of Massachusetts. He showed how one insurance company after another had dropped out, until today there is really only one American company operating throughout California, and this with only limited coverage. He then discussed Lloyd's of London and the "broad policy" issued in California. Doctor Reinle next took up the work of the Medical Society of the State of California, summarizing the history of malpractice protection, first by the California Medical Association and later by the Medical Society, and pointed out the desirability of membership in this society.

Dr. George H. Kress spoke on *Secretarial Problems*, discussing, among other things, the legislation brought before the recent legislature, and the legislation which will appear either on the ballot or at future sessions of the legislature. Of recent proposed acts and their results, Doctor Kress stressed:

1. The battle against the bill which would have meant compulsory health insurance;

2. The fight to prevent the passage of the bill to abolish the existing set-up of the Board in the State Department of Public Health;

3. The Citizenship Bill, which would have required an applicant for examination in medicine in California to be a citizen of the United States—a bill passed, but vetoed by the Governor; and

4. Measures regarding prenatal and premarital tests for syphilis.

Doctor Kress also mentioned the special election which is called for the purpose of deciding on the so-called "Ham and Eggs" bill, and stated that the chiropractic initiative would appear on the same ballot. He next discussed the Basic Science Law, which will in all probability be on the 1940 ballot. The Wagner Senate Bill and the Wagner Amendments to H. R. 6635 were thoroughly canvassed, and members were urged to write to their representatives in Congress expressing their disapproval of these measures. Finally, Doctor Kress referred to the press releases which are being sent to newspapers throughout California, in order that the editors may have authoritative information on organized medicine and public health. Doctor Kress also discussed *Postgraduate Conferences*, the *Woman's Auxiliary*, and *California and Western Medicine*, and ended with a plea to make use of the Association's central office whenever necessary.

At the close of the formal program, Doctor Miller, on behalf of the Society, expressed the members' appreciation for the excellent and informative talks by the State officers, and by our legislative representatives. Then followed a number of questions from the floor, which were promptly answered by Doctors Dukes, Reinle, and Kress.

The application of Dr. Monica Stoy Briner, for membership in the Placer County Medical Society was read and, on motion duly made and seconded, Doctor Briner was unanimously elected.

The Secretary then brought up for consideration the names of two of our Placer County Medical Society's oldest members who have retired from practice. A motion was made, seconded and carried, that the Secretary direct a letter to the Council asking for retired membership for these two members.

The Secretary stated that 50 per cent of the members had paid the special assessment, and urged prompt payment by those who have not already made remittance.

The Secretary also urged our members to write their representatives in Congress regarding the Wagner amendments to H. R. 6635.

By order of the members of the Society, President Miller instructed the Secretary to write to Mr. Ward, Manager of the Tahoe Tavern, and thank him for the excellent luncheon and the Tavern's good service.

There being no further business, the meeting adjourned.

ROBERT A. PEERS, *Secretary*.



#### SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was called to order by President Manuel L. Azevedo at the Auditorium on Twenty-ninth and L streets, on May 16.

There were forty-eight members and guests present.

The paper of the evening was presented by Dr. F. F. Gundrum of Sacramento. His subject was *Regional Ileitis*. Doctor Gundrum first discussed the history of the disease, then the pathology, incidence, etiology, and treatment. Doctor Saeltzer reported on a patient he had recently operated upon. Doctor Titus, likewise, reported one of his cases which seemed to fall under this classification. Doctor Gundrum's paper was well given, and elicited much discussion by Doctors Reardan, O. Cook, and Pulford.

Dr. Raymond Wallerius introduced a motion regarding the Sacramento Pharmacists' Guild, which was passed. Doctor Wallerius also reported on the California Medical Association Convention at Del Monte.

GLENN E. MILLAR, *Secretary*,



**CHANGES IN MEMBERSHIP****New Members (38)***Alameda County*

Lloyd F. Hawkinson	Alfred Stern
Rufus I. Newell	Philip R. Van Horn
William F. Priestly	

*Humboldt County*

Howard W. Finke

*Imperial County*

Claude F. Peters

*Inyo-Mono County*

Selda E. Anthony	Clarence L. Scott
Lloyd S. Bambauer	Riley Shrum
Harvey W. Crook	George D. Shultz
James Lloyd Mason	William I. Shultz
William M. Russell	N. John Zahry

*Kern County*

W. L. McEwen

*Los Angeles County*

John C. Arnout	Sidney Messer
Eddie Henry Lager	Frederick Leo Pickoff
Joseph Leo Maeth	Byron L. Stewart
Charles Mandel	Fessenden O. Westfall
Armas Manning	Ross G. White

*Monterey County*

Clark Saunders E. E. Wadsworth

*San Bernardino County*

William L. Cover Joel M. Gibbons

*San Diego County*

Raymond C. Lindholm

*San Francisco County*

R. Emmet Allen

*San Mateo County*

Logan Gray

*Santa Barbara County*

L. C. Newton Wayland

*Sonoma County*

A. G. Maximov G. E. Webster

**Transferred (1)**

John Blum, from Santa Clara County to Alameda County.

**In Memoriam**

**Boyd, Truman Osborne.** Died at Long Beach, July 8, 1939, age 70. Graduate of the University of Louisville School of Medicine, 1902. Licensed in California in 1904. Doctor Truman was a retired member of the Los Angeles County Medical Association.

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**Clark, Isaac Sherman.** Died at Spokane, Washington, August 3, 1939, age 69. Graduate of Keokuk Medical College, Iowa, 1898. Licensed in California in 1921. Doctor Clark was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

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**Hodges, Walter Allen.** Died at La Vina, July 22, 1939, age 58. Graduate of St. Louis University School of Medicine, 1905. Licensed in California in 1930. Doctor Hodges was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

**Hughes, Ephraim George.** Died at Long Beach, July 7, 1939, age 60. Graduate of Jefferson Medical College of Philadelphia, 1907. Licensed in California in 1927. Doctor Hughes was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

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**Leonard, Alexander Thomas.** Died at San Francisco, July 2, 1939, age 81. Graduate of the Royal College of Physicians and the Royal College of Surgeons, Edinburgh, Scotland, 1882. Licensed in California in 1884. Doctor Leonard was a retired member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

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**Lobingier, Andrew Stewart.** Died at Los Angeles, July 31, 1939, age 77. Graduate of the University of Michigan Medical School, Ann Arbor, 1889. Licensed in California in 1901. Doctor Lobingier was an honorary member of the Los Angeles County Medical Association.

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**McLellan, George Hudson.** Died at San Diego, July 14, 1939, age 55. Graduate of the University of Michigan Medical School, Ann Arbor, 1907. Licensed in California in 1922. Doctor McLellan was a retired member of the San Diego County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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**Rees, R. Bynon.** Died at Los Angeles, August 21, 1939, age 71. Graduate of University of Maryland School of Medicine, and College of Physicians and Surgeons, Baltimore, 1900. Licensed in California in 1906. Doctor Rees was a member of the Kern County Medical Society, the California Medical Association, and the American Medical Association.

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**Tobias, Elliott Benald.** Died at San Francisco, August 2, 1939, age 40. Graduate of the College of Physicians and Surgeons, San Francisco, 1921, and licensed in California the same year. Doctor Tobias was a member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

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**Updegraff, Thaddeus S.** Died at Pasadena, August 2, 1939, age 74. Graduate of Jefferson Medical College of Philadelphia, 1883. Licensed in California in 1893. Doctor Updegraff was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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**OBITUARIES****Alexander Thomas Leonard****1858-1939**

Few of us expect to be engaged in our profession at the age of eighty, but one who was, and who lived his life fully and energetically to the end, was Dr. Alexander Thomas Leonard, a pioneer connected with the early history of our city. On July 2, Doctor Leonard passed away after a long and interesting life. Born in County Galway, Ireland, September 11, 1858, he received his education at the Royal College of Surgeons and Queen's College, Ireland, and

the Royal College of Surgeons at Edinburgh, winning the Sir Charles Bell Medal in 1883. . . .

Many of the older residents of the city remember Doctor Leonard in the "horse and buggy days," for he was one of the last to give up the horses that he loved so well. One by one, however, they were put out to pasture and, finally, the old buggy, with its hunting dog running beneath, was supplanted by a modern car. In 1917 Doctor Leonard became director and staff surgeon of Trinity Hospital, and director of the Nurses' Training School. . . .

Friends and patients filled the church and overflowed into the street outside, for there was not room for all of them. So passed another well-loved man of medicine, and one more link with the olden days is gone.

H. M. F. BEHNEMAN, M. D.



### H. D'Arcy Power

1856-1939

Those of the older physicians and surgeons of San Francisco who once knew Dr. H. D'Arcy Power will learn with profound regret of his passing away at Berkhamstead, a suburb of London, on July 25, 1939, at the age of eighty-two years and four months.

For many years he was a prominent clinician in the Bay city and an influential member of both the California Medical and the American Medical Association. He enjoyed distinction as dean of the College of Physicians until its destruction by the earthquake and fire in 1906, and six years later he was editor of the California Medical Association journal, thereby further guiding the development of scientific and organized medicine in the West. For ten years Doctor Power lived at the mining town of Freiberg, Germany, where, as a chemist of note, he contributed to the scientific literature of various European professional periodicals. He was recognized as an authority on photography, and credited with a worth-while part in the development of color processes. With Doctor Hala of Brooklyn, New York, he wrote "Power's and Hala's Pathology," and at the time of his death had several scientific works more or less complete in manuscript.



### Samuel Leroy Rea

1874-1939

Dr. Samuel Leroy Rea, who died on June 8, was born in Pomo, now Potter Valley, on February 2, 1874, the son of Joseph N. and Mary J. Rea, California pioneers of 1869. From Potter the family moved to Covelo, where the lad, Samuel, attended the grammar school; and when he was ready for more advanced study he went to San Francisco and was there graduated from the Polytechnic High School. Entering the Cooper Medical College, he received his M. D. degree in 1896. After a year as intern in the City and County Hospital, he located for a year at Hopland, and then settled down to establish a more permanent practice in Ukiah, soon becoming so popular, through both his skill and nobility of character, that he came into touch with wide circles throughout the county. On December 1, 1903, Doctor Rea and Miss Stella McCormick were united in marriage, and two sons—Dr. Stanley L. and Walton Joseph—blessed their union.

Commencing his professional career in the middle nineties, Doctor Rea was privileged to contribute much toward the development of both medicine and surgery in Ukiah and Mendocino County, making innumerable trips to visit and alleviate the afflicted in distant parts when horseback, buggy, horse-stage, and the automobile were, in turn, the only forms of transportation. It has been said that one might write a bookful of his travels. He was particularly active in fathering and developing the Langland Hospital,

of which he was the controlling head for years; later generously devoting the same time and energy to the expansion of the Ukiah General Hospital, where he directed the surgery. Everywhere that he went, every time that he served, he left with those coming into his life the same impressions—never to be forgotten.

"A friend of all, with a benevolent, sympathetic nature," says Dr. Raymond Babcock, in a touching tribute, "and seeking ever to attain, what he believed in, the highest professional standing. I salute our confrère, a man, if ever there was, of sterling character, and one to whom we, of this Mendocino-Lake County Medical Society, owe a great deal, particularly for bringing us through very trying times. It was my privilege, indeed, to have known this man since my boyhood, admiring him as a country doctor, enjoying with him my first automobile ride, and later, in the capacity of druggist, consulting with him in the care of the sick, when his humanity as a doctor, his professional wisdom, his ready wit, and his keenness of intellect in emergency were again and again revealed. His fame will long live, particularly in the hearts of those to whom he became a benefactor. So, as friend and associate, I salute him and bid him bon voyage on the journey to that higher career which we hope will still bring him the finest of things such as he has assuredly left behind."

## THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. FREDERICK N. SCATENA.....President.  
MRS. WILLIAM C. BOECK.....Chairman on Publicity.  
MRS. KARL O. VON HAGEN.....Asst. Chairman on Publicity.

### Report: Seventeenth Annual Session of the Woman's Auxiliary to the American Medical Association

Theme: With the permanent values of yesterday, let us build wisely and courageously today, toward a happier and more righteous tomorrow.

By MRS. FREDERICK N. SCATENA

*President of the Woman's Auxiliary to the California  
Medical Association*

*To the Members of the Woman's Auxiliary to the California Medical Association:*

The seventeenth annual convention of the Woman's Auxiliary to the American Medical Association was held in St. Louis, Missouri, May 15 to 19, 1939. Headquarters were situated in the Chase Hotel, where there was ample room for registration and exhibits. In the main foyer on the same floor the Auxiliary held its board and general meetings.

The official family of the organization met on Monday morning in the Regency Room of the hotel. Our National President, Mrs. Charles C. Tomlinson of Omaha, Nebraska, opened the preconvention meeting. Roll call followed the prayer, and then continued the usual routine of board meetings, announcements of committees; recommendation of officers and committee chairmen. An informal luncheon followed, where an opportunity was offered to greet old friends and meet new ones.

Tuesday morning, May 16, in the Regency Room, the formal opening of the convention took place. Mrs. Tomlinson presided. Mrs. Willard Bartlett, General Chairman,

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Karl O. Von Hagen, Assistant Chairman on Publicity, 5867 Whitworth Drive, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Von Hagen and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.



was introduced. Invocation by Rev. J. W. MacIvor. Then followed the address of welcome tendered by Mrs. E. Horace Johnson; the response was made by Mrs. Samuel Clark Red of Texas, nationally known as an organizer. It was Mrs. Red's inspiration of the idea which resulted in the formation of the Woman's Auxiliary, and she served as its first national president for a period of three years.

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*In Memoriam.*—"For those who have preceded us into the mysterious land from whose bourne no traveler ever returns" was given by Mrs. Charles P. Corn. The minutes of the sixteenth annual convention, held in San Francisco, were read and approved. Roll call disclosed that thirty-seven states and the District of Columbia were represented.

Our own Mrs. Eric Larson of California was appointed chairman of the Resolutions Committee. The Committee report was read and approved.

Then followed the President's address. In this she stressed the imperative need of coöperation, the need of courage, inspiration and desire to assume responsibility. She gave high commendation to her board members for their loyalty and for the record of achievement which they were leaving.

The work under the leadership of Mrs. Tomlinson has been far-reaching and successful.

The Treasurer's report indicates the sound financial status of our organization, the budget has not been exceeded and there is a substantial balance on hand. The annual budget for 1939-1940 has been increased.

Organization report of Mrs. Frank Haggard: This report revealed the fact that, while most states showed an increase in membership, California showed the greatest percentage of decrease.

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*Hygeia.*—Mrs. Frank N. Lester reported an increase in circulation, and also suggested that a copy of *Hygeia* be given to each rural school, and that it be placed in public institutions, libraries, salons, and reading rooms of the Young Men's Christian Association and the Young Women's Christian Association.

Mrs. Lester further stressed the fact that one of the prime duties of the Auxiliary is the distribution and promotion of *Hygeia* through the Parent-Teacher Association, Boards of Education, and other bodies interested in education. The success which *Hygeia* has had may be said to be a direct outgrowth of the determined effort and will to succeed, which Mrs. Lester has shown in her campaign for *Hygeia*.

\* \* \*

*Legislation.*—Mrs. Arthur Herold, Chairman: A definite educational program has been prepared for the county auxiliaries this year.

The topics for study will include: State or Socialized Medicine; Free Clinics, Uses and Abuses; Official Medical Service Bureau; The Healing Cults; Antimedical Propaganda, each having subtopics.

\* \* \*

*Publicity.*—Mrs. James P. Simonds, Chairman: Progress and efficiency have characterized the work of the State Publicity Chairman. The splendid spirit of coöperation has lightened the labor and increased interest in the many forms of publicity. Many states have evolved their own organ for publicity; these are either in the form of a news letter or some type of publicity calculated to increase interest, in some instances purely local in color.

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*Public Relations.*—Mrs. Henry Raile, Chairman, reported increase of interest in state and county auxiliaries.

The following recommendations are presented for county chairmen of public relations:

1. Study recommendations and equipment from National and State chairmen.

2. Consult the president of your county auxiliary and advisors about county work as recommended and about plans for essay contest, speakers' bureaus, radio broadcasts, press notices, health programs for and in lay organizations, coöperation with a summer round-up, selection and distribution of educational material, *Hygeia* booths at fairs, etc.

3. Have a Public Relations Committee of members having experience and membership in other organizations. Include some members who are new in the work, as it is our constant purpose to train others to succeed us in this work. Call a meeting as soon as your county plans are prepared and discuss objectives, plans, procedure, and equipment for the year and assign definite projects to each member.

4. Discuss plans with the president and chairman of your Program Committee and secure a regular time at every meeting to give facts on public relations work.

5. Ask each member to give you a list of lay organizations of which she is a member and the committees and chairmanships in them to which she belongs. Urge members to ask for places on health committees; to accept chairmanships and learn the plans of such committees; to give their presidents health information which your auxiliary is promoting; to attend the meetings where speakers on health participate and report unwise and unacceptable programs and activities; to offer a list of material; to recommend *Hygeia*; and to explain the Speakers' Bureau of your medical society to them.

6. Compile a list of city and county lay organizations with names and addresses of their presidents and health chairmen; if possible, have copies made for your members, but at least for your president and officers.

7. Have one or more county public relations programs for lay organizations in your county. Details of plans for such an event may be secured from your state chairman.

8. Have a national handbook and a subscription to the National News Letter; read the Auxiliary pages in *The Journal of the American Medical Association* and in the state journal of your medical association; be on the mailing list of your state board of health; read and contribute to your state auxiliary news; write to your state chairmen for data on their plans, as it is necessary to know all phases of Auxiliary work when engaged in public relations work.

9. Consult your advisors, president, and state chairman whenever in doubt; educate members; equip those who are assisting, and remind members that no one need to try to do more than she understands or that is convenient at a given time.

10. Suggest books and articles to read which will add to the appreciation of the medical profession and medical arts and give a foundation for public relations work.

\* \* \*

*Exhibits.*—Mrs. Ily R. Beir, Chairman: The exhibits were not only attractive, but educational. All were well thought out and presented for quick assimilation for visitors whose time was limited.

The exhibits comprised scrapbooks; maps and charts, showing expansion; displays, showing the various posters; illustration or displays, showing the various activities of the state or counties, with details of one or more lines of especial progress; and some noteworthy exhibits giving a general idea of the activities of that state. California had many copies of the "Courier" on hand and great interest was manifested as members and guests looked through the pages.

The President's report on the thirty-nine states and the District of Columbia were read by authorized delegates, and will be published in the next News Letter.

Many states had problems to solve, all of an interesting nature, particularly the larger cities, where the unprecedented demand upon one's time for social, civic, religious, and club activities almost robs one of the right to live as an individual and undoubtedly reduces the effectiveness of Auxiliary activity.

The present task and ambition is to maintain and further the principles upon which our organization has been built. No organization, no matter how lofty its ideals or how fervent its members, can endure without a well-balanced and sincere belief in its members.

I believe the interchange of new ideas, reports of activities, opportunity of making new friendships and renewing old ones, aid in the furthering of our common interest.

The election and installation of officers were capably handled by Mrs. J. Newton Hunsburger. Mrs. Rollo K. Packard of Chicago, Illinois, will serve for the ensuing year as president. She has the assurance of the loyalty and coöperation of the membership and their sincere wish that her year of administration will be a happy one.

"Coming together means Beginning.

Being together means Progress.

Keeping together means Success."

I wish to express my appreciation for the opportunity of attending this seventeenth annual meeting, and if I have enlightened you a particle or made your interest a bit keener, for that I am grateful.

• • •

The social program was arranged under the direction of a most capable convention chairman, Mrs. Willard Bartlett. Many diversified plans had been made for our entertainment. This provided a delightful holiday which was pleasant and instructive.

On Sunday evening, May 14, a reception for the National Board of Directors and all visiting ladies, in honor of Mrs. Charles C. Tomlinson, National President, was held at the home of Mrs. Willard Bartlett, the Board members of St. Louis Auxiliary and the Convention Chairmen assisting the hostess. Mrs. Bartlett served in the same capacity as convention chairman sixteen years ago in St. Louis, when our Woman's Auxiliary to the American Medical Association was organized.

On Monday afternoon we had the opportunity of visiting three most interesting gardens in St. Louis:

The garden of the hazelnut estate of Samuel W. Fordycis was charming. It was rich in unusual native flowers; rare iris and colorful columbine were in abundance.

The home of Joseph Dosloge, of copper fame, is one that shall always linger in my memory. The color combinations, garden composition and arrangement of flowers for interior decoration made it superb. We had the pleasure of a decided contrast in the home and garden of Dr. and Mrs. Vibray. Their home and furnishings were early American, and in the garden Nature has already done most of the work in naturalistic planting of fine old trees and shrubs. Tea was served outdoors on a veranda, where the cool breezes of the Missouri refreshed us tremendously.

The program arranged by the committee for this afternoon was enjoyed by all the garden lovers. St. Louis may well be proud of her charming hostesses.

The Auxiliary of the Southern Medical Society served as hostesses for a breakfast on Tuesday morning, May 16, honoring Mrs. Tomlinson. Their president, Mrs. Willis Kelly West, presided. Doctor McCormick, President of the Southern Medical Society, and Dr. Irvin Abell, President of the American Medical Association, gave short addresses, both agreeing, however, that the united efforts of the loyal Auxiliary members throughout our National

organization will accomplish much in preserving the health of our nation.

"A word fitly spoken is like apples of gold in baskets of silver."

Tuesday noon: Luncheon was served in the beautiful St. Louis Woman's Club in honor of the past president of the Woman's Auxiliary to the American Medical Association. Our National organizer, Mrs. Samuel Clark Red, was the guest speaker, and in her charming manner she gave us a résumé of the early-day activities of the organization—in fact, it was the first time since the formation of the National, organized in 1922, that St. Louis had the honor and privilege of extending hospitality to the American Medical Association and their guests. Mrs. Red related the fact that, while the Auxiliary was organized in St. Louis in 1922, their first meeting was held in the "City of Enchantment," San Francisco, the following year, 1923. Each state was asked to send two delegates to the meeting in San Francisco. About twenty courageous women responded to her appeal. They met with confidence, ignoring the discouragements, which were many; and, believe it or not, not one Californian attended the meeting. "Happy are we met, happy have we been, happy may we part, and happy meet again."

On Tuesday afternoon a conducted tour of interesting places included the Zoölogical Gardens, Museum of Fine Arts, Lindbergh trophies, and the Hospital Group of Washington. This proved very interesting. The chartered buses brought us back to the St. Louis Medical Society building, where tea was served. Members of the Women's Club of St. Louis University School of Medicine were our hostesses and the members of the National Board were honored guests. An abundance of beautiful flowers decorated the entire building.

On Tuesday evening, at the six-million-dollar St. Louis Opera House we had the privilege of attending the opening meeting of the American Medical Association.

The president of the American Medical Association, Dr. Irvin Abell presided. After the Invocation by Rev. William Scarleett we were welcomed by the Honorable Lloyd C. Stark, Governor of Missouri, and the Honorable Bernard F. Dickmann, Mayor of St. Louis; James R. McVay, President of the Missouri State Medical Association; Alfonse McMahon, President of the St. Louis Medical Society.

Their words of welcome added greatly to the sincerity of a truly dignified program. Dr. Rock Sleyster was inducted into office as president of the American Medical Association and gave a very interesting but alarming talk on psychiatry and its effect on this generation.

A reception and inspection of exhibits in the Auditorium was of great interest to all members and visitors.

• • •

The annual luncheon on Wednesday, May 17, in the Chase Club, at which Mrs. Tomlinson presided, will always serve as a gentle reminder of the charming simplicity of our president. To her I give the fullest measure of praise and appreciation for the very fine manner in which she conducted our meetings, both business and social.

The committee in charge surrounded our president and the guest speakers with the choicest of spring blossoms, and the entire dining room was filled to capacity; many late comers could not secure luncheon tickets. Mrs. Tomlinson introduced, first, the gentleman who was responsible for making possible the time and energy she gave to the Auxiliary work this year. The credit for any achievement she might claim belonged partially to this person for the gracious understanding of the problems which confronted her on occasions and his reasoning powers which assisted her when most needful, Dr. Charles C. Tomlinson. A musical program, given by the nationally known baritone,



Robert Lawrence Pribble, added greatly to the enjoyment of a delightful luncheon.

Dr. Rock Sleyster, President of the American Medical Association, addressed the group assembled, not as Auxiliary members, but as doctors' wives, giving us much praise and asking for our continued patience and tolerance which is essential in the home life of any successful physician. A reception and inspection of exhibits followed.

On Wednesday evening the Woman's Auxiliary to the St. Louis Medical Society invited all visiting ladies to the seventeenth anniversary reception and buffet supper in honor of the Founders and the National President at the Society building.

On Thursday afternoon a Mississippi steamboat trip for the doctors and their wives was enjoyed by a large group. That evening a "bring your husband dinner" was charmingly presided over by Mrs. Willard Bartlett. The traditional reception and ball, honoring the President of the American Medical Association, added greatly to the gaiety and glamour of that memorable evening.

Friday was play day. The St. Louis Country Club sponsored golf games, presenting trophies or prizes to the winners. For those not interested in sports a tour of historic St. Louis was provided.

This concluded a most enjoyable social program.

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In summarizing the entire activities of the Convention, I realize the social affairs arranged for members and guests were very well attended and enjoyed tremendously. Why have we not more interest and a larger attendance at our general sessions? Two hundred and nine men registered from California and only five women appeared at the meeting. Our meeting place was delightfully situated, and the usual procedure of a convention meeting was carried out in an intelligent and dignified manner.

It is not only a compliment to the President and the Board of Directors, who give up their time and strength that we may have the pleasure of a diversified program arranged to educate and entertain, but it is an obligation we assume when we accept an office or become a member of the organization.

They desire a larger enthusiastic attendance, and why do we not cooperate?

For the privilege of attending this meeting, I am grateful.  
MRS. FREDERICK N. SCATENA.

#### Notice of Proposed Amendment\*

Proposed amendment to Section 1 of Article 9 of the Constitution of the Woman's Auxiliary to the California Medical Association:

SECTION 1. For the years 1940 to 1941 and 1941 to 1942, the Nominating Committees, each consisting of five members, shall be appointed at the annual meeting, held in May, 1940. Each committee shall consist of five members, two of whom shall be elected by the Board of Directors, and three to be members at large, elected by the House of Delegates. The members elected by the Board of Directors shall be elected at the regular meeting held previous to the annual meeting, while the members elected by the House of Delegates shall be elected at the first session of the annual convention. The Board of Directors shall designate the chairman of each committee. The Nominating Committee so elected for 1940 to 1941 shall present its report of nominees as soon as possible. The Nominating Committee so elected for 1941 to 1942 shall meet sixty days prior to the annual meeting in 1941, and prepare its report and submit the same at the first session of the annual meeting in 1941.

\* This proposed amendment was favorably acted upon at the California Medical Association Council meeting, held August 5, 1939. See also, on page 182, item 32.

Beginning with the annual meeting in 1941 and annually thereafter, the Nominating Committee shall be appointed each year in advance and shall consist of five members, two elected by the Board of Directors and three to be members at large, elected by the House of Delegates.

It shall be the duty of the Nominating Committee to nominate and present in the regular order of business, candidates for the following offices: president-elect; first vice-president; second vice-president; recording secretary; treasurer; and four councilors-at-large, to serve for one year or until their successors assume office.

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*Stomach and Duodenal Ulcers Must Be Considered Chronic.*—Recurrences of ulcers of the stomach and duodenum never will be prevented until the disease is viewed as chronic and the victims placed under rigid medical management, as are those afflicted with diabetes or pernicious anemia, Clarence F. G. Brown, M. D., Chicago, and Ralph E. Dolkart, M. D., Boston, declare in *The Journal of the American Medical Association*.

Citing their own experience to support this recommendation, they state: "We have found that 68 per cent of the recurrences in our clinic occur during the spring and fall. By observing patients at regular intervals throughout the year and placing them under rigid medical management during these seasons as a prophylactic measure, we have reduced the incidence of recurrence by approximately 15 per cent."

Explaining the causes of recurrence among their patients, Doctors Brown and Dolkart state: "Functional nervousness, including fatigue and anxiety, was by far the greatest detectable cause of recurrence. Next in importance was an acute infection such as a cold, an acute sore throat, a sinus infection, an acutely abscessed tooth or stomach, and intestinal inflammation. Of third consideration were the things put into the stomach by the patient, hamburgers and restaurant potato salad leading the list in foods, with salicylates and iron preparations prescribed by other physicians following closely."

No single form of treatment is successful in the management of chronic ulcer, the physicians point out. The chief aim of treatment is to protect the ulcerated area from irritation, and this goal can be attained by different routes.

"The surprisingly good records made by patients treated with hourly feedings, relative reform from frantic, anxious living, and antispasmodic medication cannot be emphasized too much," they continue. "Curtailement of emotional excitement and of fatigue are as fundamental in any plan of ulcer treatment as are the medications prescribed."

They criticize treatments in which the principal object is to neutralize the secretions of the stomach. Neutralization day and night for the life span of a patient is impossible even for the most astute physician. Giving alkaline powders may even make the patient worse, and it has been alleged that kidney stones occur in such patients to a significant degree. Such treatment makes the chronic ulcer more chronic and nothing constructive is accomplished.

Certain preparations containing aluminum hydroxide have been used with less undesirable effects, but they have been no better in preventing recurrences. Treatment with mucin, a normal constituent of the secretions of the stomach, with frequent feedings and drugs to relieve the abnormal movements of the stomach, has been found more successful than any other form of medication. A recent development is the use of "vegetable mucilage," which has been effective in mild cases.

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Drivers between the ages of sixteen and twenty kill on the average twice as many persons in highway accidents as is averaged by all motorists, according to statistics in the August issue of *Hygeia*.

## MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

### NEWS

#### Coming Meetings

*American Medical Association*, New York, June 10-14, 1940. Olin West, M. D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

*California Medical Association*, Hotel Del Coronado, Coronado, May 6-9, 1940. George H. Kress, M. D., Secretary, 450 Sutter Street, San Francisco.

*Nevada Medical Association*, Reno, September 22 and 23, 1939. Horace J. Brown, M. D., Secretary, P. O. Box 689, Reno, Nevada.

#### Medical Broadcasts\*

##### *Los Angeles County Medical Association*

The radio broadcast program for the Los Angeles County Medical Association for the month of September is as follows:

Thursday, September 7—KECA, 9:45 a. m., The Road of Health.

Saturday, September 9—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, September 14—KECA, 9:45 a. m., The Road of Health.

Saturday, September 16—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, September 21—KECA, 9:45 a. m., The Road of Health.

Saturday, September 23—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Thursday, September 28—KECA, 9:45 a. m., The Road of Health.

Saturday, September 30—KFI, 10:30 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

**Friendly Government Needed, Says Connecticut Governor.**—*The Commonwealth*, official publication issued each Tuesday for the Commonwealth Club of California, in its issue of August 22, 1939, gave a brief digest of comments made in a recent address before the Club, the following being quoted therefrom:

"Calling for a 'friendly government' in national affairs, Governor Raymond E. Baldwin of Connecticut, in an address to a special Tuesday meeting of the Club, pointed to the results secured in his own state: . . . 'We are losing our Statehood to the steadily increasing domination of a highly centralized, and, as in the case of you in California especially, a far-distant, government whose powers were strictly limited and clearly defined by the Constitution granted by the original States for the very purpose of checking that growth,' the Governor said.

"We in Connecticut possess a profound skepticism that you can ever get anything for nothing.

"And we are inclined, too, to respect the advice—the hard truths—left to us by our first President: 'That facility in changes upon the credit of mere hypotheses and opinion exposes to perpetual change, from the endless variety of hypotheses and opinion.'

"For eight years, we have followed 'the endless variety of hypotheses and opinion.' . . .

\* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

**Report Shows Medical Aid Given 24,994 Farm Workers.**—An Associated Press dispatch from Fresno, dated August 27, follows: A total of \$982,207 was expended by the Agricultural Workers' Health and Medical Association in California and Arizona since the governmental coöperative was established March 4, 1938. Medical and dental care was provided for 24,994 persons.

This was disclosed by Robert J. Graves of San Francisco, secretary-treasurer of the association, in a report submitted at the first annual meeting of the membership here. Graves said the association membership as of June 30 totaled 13,055 in the two states and operated on a budget of \$1,082,000.

Of the \$982,207 actually expended, \$811,000 represented medical and dental care for migrant farm workers and the balance of \$171,207 covered administrative costs, including clinics, equipment, salaries, supplies, travel, rent and utilities.

Directors of the association reëlected are Dr. Karl L. Schaupp, representing the California Medical Association; Dr. W. R. P. Clark, State Board of Health; Dr. Albert E. Larsen, medical director of S. R. A.; Jonathan Garst, regional director of F. S. A.; Ralph W. Hollenberg, assistant regional director of F. S. A.; Homer Mills, regional F. S. A. economist, and Graves, regional finance manager of F. S. A.

Since operation of the association began, 24,994 individuals have been treated in the two states, with professional services rendered by 700 physicians and 150 dentists.—*Los Angeles Times*.

**Advisory Committee to the San Mateo County Tuberculosis and Health Association.**—There has recently been appointed a Medical Advisory Committee to the San Mateo County Tuberculosis and Health Association, composed of Doctors Musselman, Benninghoven, Gregory, Monteith, Bridgman, Blood, Mawdsley, and Warren. It is to be expected that this committee will sit in an advisory capacity and function to some extent at least as a liaison committee between the County Medical Society and the Tuberculosis Association.

Any questions or suggestions one may have to submit in connection with tuberculin testing in the schools and other problems of tuberculosis control in San Mateo County should be referred to one of these committee members.

The following proposed program of the Association for the year 1939 and 1940 was considered and approved by the Committee.

1. All high school seniors in San Mateo County to be tuberculin tested.

2. Education of school nurses to modern methods used in tuberculin testing, diagnosis, and the care of tuberculous patients.

3. The sending of follow-up letters to the negative and positive reactors of 1937 and 1938.

4. Carrying out of a program of educational work in the schools, industries, and adult groups by the use of motion pictures, slides, literature, radio, etc.

5. Recommended the solicitation of the County Health Department for suggestions and assistance in carrying out the program.

6. It was suggested that children who are positive reactors and who require x-ray examination would be expected to pay a reduced fee for such x-ray examination where possible.



**To Help Save One Hundred Lives Between Now and New Year's Eve.**—The California Safety Council, 805 Fife Building, San Francisco, and 805 Pacific Electric Railway Building, Los Angeles, is publicizing the following pedestrian safety pledge:

**Sponsored by (Name of Local Organization) in Conjunction with California Safety Council**

As a pedestrian I hereby subscribe to the following pledge to advance public safety in this city:

1. Refrain from crossing streets except at intersections and then only after careful observation of oncoming traffic.
2. Realize that coöperation with drivers in the matter of courtesy should be reciprocal.
3. To face oncoming traffic when walking on the highway.
4. To make safe practices a habit for my own safety.

**Hidden Cases of Venereal Disease.**—Current national emphasis on open discussion of venereal diseases is resulting in the discovery of vast numbers of hidden cases, officials of the United States Public Health Service recently reported.

Interviews by trained social workers of patients under treatment for venereal disease in a public health clinic bring to light an average of three new contacts for each two interviews. More than 90 per cent of the patients coöperated in telling of contacts and aided in bringing them to treatment. A syphilis rate of 40 per cent and a gonorrhea rate of 62 per cent were found for the contacts examined.

Patients with early cases of syphilis were less coöperative in divulging sources of infection than were patients with later forms of the disease. Gonorrhea contacts were five times as high outside of marriage as within families.

More than 40 per cent of the 281 contacts who were examined for syphilis were found to be infected. More than 62 per cent of the 72 contacts who were examined for gonorrhea were found to be infected.

**Early Smallpox in State Stopped by Vaccination.**—Long-hidden information tending to show how the California of a century and a quarter ago was saved from successive waves of smallpox through widespread vaccination, is revealed in an article by Dr. S. F. Cook, Division of Physiology, University of California Medical School, in the current *Bulletin of the History of Medicine*. The aged documents consulted by Doctor Cook reveal that the New Spain of far western America, isolated by thousands of miles from the mother country, was one of the first great areas of the world to obtain the benefits of vaccination, discovered by Jenner in 1798.

By 1803 vaccination was widely used in this great area, the vaccine being first brought in by an expedition under command of Francis Xavier de Balmis. Thereafter but few references appear either to vaccination or smallpox until 1817, and even then the situation apparently was not serious, despite the many setbacks offered by the native population in regard to accepting the benefits of the new therapy.

In 1828, however, the long regional immunity of California came to an end, and the first of a series of devastating epidemics began. Thereafter the adventurous James Ohio Pattie came forth with his startling claim that he had vaccinated 22,000 persons between San Diego and Fort Ross in Sonoma County, but this number was considerably cut down by other authorities. Much of Doctor Cook's narrative is given over to Pattie's apparently fantastic claims.

The great epidemic of 1837-1838 and 1839, which swept over most of Northern California, and which was estimated at the time to have taken between 60,000 and 100,000 lives, is described by Doctor Cook.

**Correction.**—In a footnote, appearing on page 76 of CALIFORNIA AND WESTERN MEDICINE for August, 1939, the Bureau of Public Administration of the University of California was erroneously referred to as the Bureau of Public Health Administration. The error consisted in the inclusion of the word "Health." The department is officially known as the Bureau of Public Administration.

**Pituitary Growth Hormone Purified Further at the University of California.**—Characterizing their accomplishment as "seeming of the greatest importance in establishing the individuality of this hormone," four University of California scientists have announced that they have succeeded in obtaining an almost pure extract of the growth hormone secreted in the human body by the anterior pituitary gland.

The announcement was made in *Science*, technical magazine, by Dr. Herbert M. Evans, Dr. Miriam E. Simpson, Dr. Heinz L. Fraenkel-Conrat, and Donald L. Meamber, of the University's Institute of Experimental Biology.

The growth hormone, first isolated at the University by Doctor Evans and a colleague, Dr. J. A. Long, controls the general development of the body. If the pituitary produces an excess of this hormone, abnormal development, even gigantism, may result. On the other hand, if there is a deficiency of this growth-stimulator, the body will not develop to normal size.

For several years University scientists have been attempting through chemical treatment to separate the growth hormone from other substances secreted by the pituitary. When final purification is obtained, Doctor Evans believes, the hormone may be used to produce spectacular improvement in children stunted by pituitary deficiency.

In the experiments reported, the growth hormone was freed of two and possibly more of the specific products of the gland.

**Survey Gives Graphic Picture of Medical Lack.**—Efforts of the State of California and the state organizations of medical men to extend adequate health service to all has occasioned a searching survey of health insurance projects, both state and national, by the Bureau of Public Administration of the University of California. The survey, which was requested by a number of the members of the State Legislature, shows that 41.68 per cent of the families in the United States are too poor to meet the full cost of adequate care. Forty-seven per cent of this number are unable to provide any sort of medical or dental care.

According to the survey a total of 40,000,000 persons in the United States were in families subsisting on an emergency standard of living in 1938. Twenty million persons represented families that were dependent upon the public, and 20,000,000 additional were in the marginal-income class which cannot meet the cost of sickness.

The conclusion reached in the survey is that "the average family requires protection from the uncertainties and costs of sickness."

Health insurance has been a matter of public interest in California since 1915, when a Social Insurance Commission of five persons was named by Governor Johnson. It rendered a report to the 1917 legislature, recommending the establishment of a voluntary social health insurance system under the supervision of the State Insurance Commission. Pursuant to the Social Insurance Commission's report, the Legislature, by a two-thirds vote of both houses, proposed a health insurance amendment to the Constitution. The amendment was beaten by the people by a vote of 358,324 to 133,858.

No further legislative action was taken until 1935, when the depression promoted a bill for the establishment of a system of compulsory health insurance for persons earning less than \$300 a year. The bill died in committee.—*University of California Clip Sheet*.

**Improvements in the British Medical Journal.**—At the representative meeting, Dr. R. G. Gordon, Chairman of the Journal Committee, said that the new *Key to Medical Literature* had met with much appreciation. It contained more than twice the number of abstracts that its predecessor, the *Epitome*, did. An endeavor had been made to prepare for an emergency by interrupting the series of general practitioner articles by a special war series. With regard to the special journals published by the Association, for the first time one had shown a credit. The *Journal of Neurology and Psychiatry* in new form had increased its subscription list. The *British Heart Journal* already had a subscription list of nearly 400. Arrangements had been made for a *Journal of Thoracic Medicine and Surgery*. One member was perturbed at the increasing cost of the *British Medical Journal*. He thought it ought to pay for itself, and one of the reasons why it did not was that it was much too large; the only people who could read it all were retired and semi-retired practitioners! Doctor Gordon did not think it desirable to state how much of the members' subscriptions went to the *Journal*. No such periodical could meet all its expenditures from its own revenue, and the American Medical Association allotted more than half its revenue to its journal, while the proportion for the *British Medical Journal* was less than one-sixth.—From the American Medical Association Correspondent, in the Letters Department, *Journal of the American Medical Association*, August 19, 1939.

**Federal Allocations for Venereal Disease Control.**—“The sum of \$4,379,250 will be allotted to the states for venereal disease control programs during the coming twelve months,” Dr. Thomas Parran, Surgeon-General, United States Public Health Service, recently announced.

This expenditure is made possible by the LaFollette-Bulwinkle Act of 1938, which authorized an appropriation of \$5,000,000 for the fiscal year 1940. Allotments to the states constitute 86.9 per cent of the total amount available for venereal disease control work. The remaining 13.1 per cent, amounting to \$620,750, will be used for research, laboratory and field demonstrations, and administration.

The Federal allotment, which will be supplemented by state and local appropriations and by special grants from foundations and other private organizations, will represent a larger sum of money than has been available for venereal disease control programs in any previous year. Doctor Parran pointed out, however, that “funds now available do not yet approximate the estimates considered by medical and public health authorities to be necessary for the most effective public health campaign against syphilis and gonorrhea.” It is expected that additional allotments from public and private sources will be sought for 1941.

The Federal Government's share for venereal disease control work in the states and localities during the next twelve months' period has been allotted on the basis of (1) population, (2) extent of the venereal disease problem, and (3) the financial needs of the various sections of the country.

In order to receive these grants, the Surgeon-General announced that the states must meet certain general minimum requirements in the prevention, treatment, and control of the venereal diseases. These requirements are based on recommendations adopted by the Conference of State and Territorial Health Officers on April 13, 1936. Federal funds for venereal disease control programs must be matched by state or local funds and must not replace funds from such sources already being used.

**Radium Loaned to Hospitals by Federal Government.** After consultation with state departments of health, the National Cancer Institute of the United States Public Health Service has recommended that about eight and

one-half grams of Government-owned radium, valued at \$180,000, be loaned to various hospitals in twenty different states and the Territory of Hawaii. . . .

Applications for the loan of radium for the treatment of cancer have been received from California, Colorado, Connecticut, Georgia, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Nebraska, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Texas, Vermont, Virginia, Washington, and Hawaii.

Los Angeles County Hospital, Los Angeles, California, was the first hospital in its State to apply for a radium loan, and the application has been approved.

Because of its penetrating rays (next to cosmic rays, the most penetrating of all rays), radium is useful in treating cancerous growths in parts of the body which are otherwise inaccessible. Although costly at the outset, radium can be used over and over again through thousands of years. It is scientifically estimated that radium loses only half its strength every 1,700 years.

In approving the various applications, officials of the National Cancer Institute made their choices on the basis of need for radium and the competence of staff and adequacy of facilities for radium treatment. Needs are much greater in some areas of the country than in others although practically all states and sections could use more radium to advantage if they had it. Authorities state that there should be two grams of radium for every million persons, but it is reliably estimated that only about 133 grams are in use in the United States at the present time.

The National Cancer Institute still has about 1,300 milligrams of radium which have not been allotted on a loan basis, and applications for radium loans will continue to be considered. Institutions receiving the Government-owned radium have to agree to make no charges to the patients for its use and meet high standards regarding personal administration of the treatment.

**Press Clippings.**—Some news items from the daily press on matters related to medical practice follow:

**Opponent of Chiropractors' Measure Says “Deck Stacked” \***

Sacramento, August 22 (AP).—A Redwood City attorney charged today that the selection of persons to write pro and con arguments on the chiropractors' initiative on the November 7 ballot is a “clear case of stacking the deck” against opponents of the proposal.

The attorney, Frank V. Kingston, writing in behalf of the Chiropractic League of California, said Lieutenant-Governor Ellis E. Patterson “must have been misled and imposed upon” when he named five persons to prepare the arguments.

Meanwhile, Charles J. Hagerty, Deputy Secretary of State, said a comparison of copies of the two arguments showed they were written on the same typewriter and on paper with identical watermarks.

The initiative increases the powers of the Chiropractic Board; raises educational requirements of applicants for licenses and declares licensees shall report communicable diseases and sign birth and death certificates. State law provides that the Lieutenant-Governor must name persons to write arguments pro and con so that they may be studied by the voters.

It was the selection of the persons to write opposition arguments which brought the protest from Kingston.

The arguments received by Hagerty today showed Dr. W. Franklin Morris of Berkeley, member of the State Board of Chiropractic Examiners; Dr. Stanley M. Innes, San Jose, past president of the Affiliated Chiropractors of California, and Dr. George E. Swanson, Berkeley, President of the Affiliated Chiropractors of California, Alameda-Contra Costa Unit, wrote in favor of the initiative.

The opposing argument was signed by Mrs. Elsie James and Mrs. Mildred S. Potts of Berkeley.—*Los Angeles Times*, August 23.

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**Chiropractors Win Initiative Row**

Examiner Bureau, Sacramento, Aug. 23.—Lieutenant-Governor Ellis E. Patterson informed the Secretary of State's office today he will appoint new writers to prepare arguments against a chiropractic initiative measure to be submitted to the people at the November 7 special election.

\* For editorial comment, see page 147.



Patterson's announcement followed charges by the Chiropractic League of California, opposing the measure, that authors of the arguments for and against the measure were guilty of collusion. Under the constitution the Lieutenant-Governor appoints writers for arguments on all ballot propositions.

Dr. Stanley M. Innes, San Jose, Dr. George E. Swanson, Berkeley, and Dr. W. F. Morris, Oakland, wrote the favorable arguments. Innes, the league charged, assisted Mrs. Elsie James and Mrs. Mildred S. Potts of Berkeley to prepare the opposing argument.

An investigation by the Bureau of Criminal Identification indicated both pro and con arguments had been written on the same type of stationery and the same typewriter.—San Francisco Examiner, August 24.

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#### Chiropractors Get Support in Fight Convention Favors General Hospital Unit

Backing for the Los Angeles College of Chiropractic's fight to obtain General Hospital recognition in the form of a fifty-bed unit in which chiropractic treatments may be given was pledged yesterday by the American Progressive Chiropractic Association in convention here with more than fifteen hundred delegates.

The support took the form of a resolution offered by Dr. Charles W. von Walden, president of the Associate Alumni Association of the college.

The convention will end today with a "perfect man and perfect woman" contest.—Los Angeles Times, August 5.

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#### Health Insurance \* State Employees to Sign

The California Physicians' Service, health insurance organization sponsored by the California Medical Association, got off to a flying start yesterday when the California State Employees Association, with its membership of nineteen thousand, agreed to accept the service.

The formal contract will be signed Monday, twenty-four hours before present policies of the association with a private insurance company expire.

Membership is voluntary, but those State employees earning \$3,000 a year or less who do sign up will have available the services of 5,000 physicians and surgeons, as well as facilities in virtually all recognized hospitals in the State.

Under regulations announced recently, beneficiaries are offered complete medical and surgical care for one year for any illness or injury, hospitalization for twenty-one days, at a cost of \$2.50 per month. An alternative "deductible" plan, at \$2 monthly, gives them the same privileges provided they pay for the first two physician calls.

This prepaid service is for employed groups of five or more, and no physical examination is required. Exceptions noted yesterday were mental cases, drug addiction, chronic alcoholism, injuries sustained as a result of lawlessness or those self-inflicted, or those covered by workmen's compensation.

Medical and childbirth care will be provided only after the mother has been a member of the CPS for two years or more. Treatment will not be given for conditions existing at the time of issuance of policies.

The State has been divided into twenty-one districts, with a deputy medical director in each. Under these are additional assistant deputies, placed at points so as to make available the CPS to virtually every citizen.

Dr. Ray Lyman Wilbur, president of Stanford University and former president of the American Medical Association, is president of the service. Dr. Morton R. Gibbons, Sr., of San Francisco is medical director, and Dr. E. Vincent Askey of Los Angeles is assistant medical director. State headquarters are maintained in San Francisco.—San Francisco Chronicle, August 12.

\* \* \*

#### Narcotic Bill's Signing Hailed as Major Step Underworld Left Without Source, Says Official

Signing of Assemblyman Edward O'Day's bill to curb the narcotics evil by Governor Olson yesterday was hailed as a major advance in the battle against the dope habit by Paul Madden, chief of the State Narcotic Enforcement Bureau.

The bill, according to Madden, requires all prescriptions for narcotics to be made out in triplicate, and will aid in preventing medicinal narcotics from reaching the underworld.

Narcotic prescription records, according to the bill, henceforth will be kept on file by the enforcement bureau, by the pharmacists and by the physicians, thus reducing the chances for forged prescriptions being honored.

\* See also C.P.S. Bulletins, on pages 184-186.

At least 1,100 forged prescriptions have been used by addicts to obtain supplies of narcotics in San Francisco and Los Angeles during the past two years, Madden estimated.

The enforcement chief was assisted in the drafting of the O'Day bill by the California Medical Association, the State Board of Pharmacy and pharmaceutical associations of both southern and northern California.—San Francisco Examiner, July 27.

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#### U. S. Appeals Ruling on Medical Group

Washington, July 31 (AP).—The Justice Department asked the United States Court of Appeals today to overrule a lower court decision that the American Medical Association could not be prosecuted on charges of violating the Sherman Antitrust Act.

Justice Proctor of the United States District Court ruled last week that the practice of medicine was a "learned profession," not a "trade," and therefore did not come under the provisions of the antitrust law.—San Francisco Chronicle, August 1.

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#### Senate Approves Health Program

Washington, Aug. 4 (AP).—The Senate Labor Committee gave its endorsement today to broad outlines of a proposed national health program, but withheld until next year its specific recommendations for legislation.

In a preliminary report to the Senate on a bill by Senator Wagner (D., N. Y.) to authorize annual Federal grants to states for various types of health service, the committee said it favored the objectives and intended to report the measure favorably at the next session of Congress with a number of amendments.—San Francisco Chronicle, August 5.

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#### Associated Women Hear Survey of Western Rural Health

The farmers of the eleven western states do not want compulsory health insurance, but they do want improved hospital and health service on a voluntary cooperative basis.

That was the result of a study made by the Associated Women of the Farm Bureau, as reported at the Santa Cruz conference by Mrs. Florence B. Bovett of Reno, regional director.

There are 937 hospitals in the eleven western states. In a total of 305 counties there are 105 county hospitals. The average distance from the ranch to medical service varies between ten and forty-five miles, and there are 4.76 hospital beds for each 1,000 persons.

The average cost of medical service is \$3 for office calls, and \$1 a mile for home calls—one way.

Mrs. Bovett was able to compile the average family cost of medical service for three states. The figures are \$90 a year in Utah, \$70 a year in Nevada and \$79.25 a year in California.

These health costs are more than cooperative fees would be, and they do not represent complete health service since many persons neglect their health because of the cost or the uncertainty as to what the cost might be. In cooperative medicine, the doctors are busier and have greater income, while the members get more medical service for a lesser cost.

The eleven western states are all watching the cooperative plan which the California Medical Association is launching. This is the sort of service for which farmers have long asked.—El Centro Imperial Enterprise, July 6.

\* \* \*

#### Medical Aid on a Repay Basis Here

Prepaid medical service is here for those who wish to take advantage of it, according to Dr. Henry S. Rogers, who was the speaker at the Wednesday luncheon of Petaluma Lions Club.

Doctor Rogers explained the plan of the newly formed California Physicians' Service, which was set up this spring for the benefit of those who wish medical service on a prepay basis.

The way was paved for the California Physicians' Service by two decisions of the California Supreme Court which decreed that such a plan was legal if the patient had free choice of physician.

The result of the decisions was to speed up the activity of the California Medical Association, which has been considering a plan of this type for many years and which had made extensive studies in an effort to develop the best protection for subscribers to the service.

The California Physicians' Service is a nonprofit corporation which has 5,000 professional members, about two-thirds of the physicians practicing in California, who will be available to persons who have policies. At the present time, groups are being affiliated with the service, but soon the benefits will be available to individuals.

The policies provide for complete medical and surgical treatment, with few exceptions, although some types of treatment are not covered until membership has been held for a stated period. Hospitalization and medicine are not covered. The monthly fee is about the average for one visit to a physician and the price was based on the average cost of caring for a patient in the United States, which figures were available from Government statistics.

A telegram was received from President George Dickerson, who is attending the International Lions convention at Pittsburgh, Pa., which conveyed greetings to the local club from International President Walter Dexter and himself.

Vice-President Robert Deitlein presided. Ellis H. New-some was fellowship chairman and introduced Doctor Rogers, who is an officer of the California Medical Association.—Petaluma *Argus-Courier*, July 20.

\* \* \*

#### Olson Accused of Favoring Own M.D.'s

In his eagerness to build up a political machine with the State relief administration, Governor Olson has even attempted to oust members of the medical staff and replace them by faithful Olson Democrats.

This amazing charge was made yesterday by Dr. H. Dewey Anderson in his letter of resignation as State relief administrator. Charging Governor Olson with introducing the spoils system on all fronts in the SRA, Anderson makes this specific allegation:

"The scrutiny of political affiliations of present (SRA) staff has gone to such an extent that a recent communication from the Governor's office indicated pointedly that in the medical staff employed as certifying physicians in Los Angeles County there were several physicians whose places might well be taken by deserving Democratic M.D.'s.

"This, my dear Governor, is a charge which has been vigorously advanced by leaders in the California Medical Association and the American Medical Association of what may well occur when any aspect of medicine is subjected to political control.

"It is a dangerous step to take, for there is no such thing as a partisan approach to the problems of medicine."—San Francisco *Examiner*, August 15.

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#### New Laws Total 1,124 \*

*Governor Signs 1,077 Measures Out of 1,397 Passed by Legislature*

California will have 1,124 new laws, records of the office of Secretary of State showed yesterday as Governor Olson and his staff relaxed from strenuous work in disposing of the last of the 1,397 bills handed him by the Legislature.

A survey of the records showed that Olson signed 1,077 bills. Bills that became law without the signature of the Governor, according to news dispatches from Sacramento, numbered 45. The Governor vetoed 142 bills. He killed 131 bills by "pocket veto," refusing to sign them before the expiration of the thirty days allotted him. The Legislature overrode the executive veto on only two measures.

The 1937 Legislature handed Governor Merriam 1,037 bills, of which he approved 933. . . .

#### Vetoed Measures

Bills which were vetoed included:

Assembly Bill 437, which would have prohibited advertising by druggess physicians on the ground that physiotherapists and naturopaths would be stopped from practicing without a physician's license, which they cannot obtain. . . .

#### Scientists Aided

A. B. 449, which would have required United States citizenship of anyone desiring a license to practice medicine. "This bill would eliminate practice by some of the world's greatest medical scientists," said the Governor. . . .—Los Angeles *Times*, July 27, 1939.

\* \* \*

#### Need for Medical, Dental Care Is Shown by Survey

Effort of the State of California and the State organizations of medical men to extend adequate health service to all has occasioned a searching survey of health insurance projects, both state and national, by the Bureau of Public Administration of the University of California.

The survey, which was requested by a number of the members of the State Legislature, shows that 41.68 per cent of the families in the United States are too poor to meet the full cost of adequate care. Forty-seven per cent of this number are unable to provide any sort of medical or dental care.

According to the survey, a total of 40,000,000 persons in the United States were in families subsisting on an emer-

\* See also, on page 186.

gency standard of living in 1938. Twenty million persons represented families that were dependent upon the public and 20,000,000 additional were in the marginal-income class which cannot meet the cost of sickness.

The conclusion reached in the survey is that "the average family requires protection from the uncertainties and costs of sickness."

Health insurance has been a matter of public interest in California since 1915, when a Social Insurance Commission of five persons was named by Governor Johnson.

It rendered a report to the 1917 legislature recommending the establishment of a voluntary social health insurance system under the State Insurance Commission.

Pursuant to the Social Insurance Commission's report, the legislature, by a two-thirds vote of both houses, proposed a health insurance amendment to the Constitution.

The amendment was beaten by the people by a vote of 358,324 to 133,858.

No further legislative action was taken until 1935, when the depression prompted a bill for the establishment of a system of compulsory health insurance for persons earning less than \$300 a year. The bill died in committee.—Turlock *Journal*, July 28.

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#### Federal Grand Jury Manners

Anything like conclusions on the question whether the American Medical Association has been guilty of restraint of trade in its efforts to resist the advance of certain types of group medical service must, of course, be deferred until the suit of the Department of Justice has been finally decided on appeal. But certain comments of Justice Proctor of the District of Columbia court on the terms of the indictment brought in this case need not escape the layman's attention.

The decision against the Government on the main issue rests upon what to most of us will appear to be a fine-drawn distinction between a "trade" and a "profession." Justice Proctor holds the distinction to be sufficiently real, under ruling decisions of the Supreme Court, to exempt doctors from the application of the Sherman antitrust law. He expressly excludes the question whether the association may have wrongfully injured the group doctors in their means of livelihood. As to that, he says:

"So here, if the livelihood of group practitioners has been injured by the wrongful acts of the defendants, they, too, have redress in a civil court. But the charge in the present case is criminal, and to stand must find its sanction solely in the statute."

Whether the Supreme Court will agree with Justice Proctor that the Government's contentions in this case represent "an extreme position which does violence to the common understanding of 'trade,' rejects authoritative decisions of our courts and ignores cardinal rules of statutory construction" and that "it is not for the courts to stretch an old statute to fit new uses for which it never was intended," remains to be seen. But, in view of the current predilection of the Department of Justice for the consent decree method of getting results, there is an immediate interest in what this decision has to say about the contents of the indictment. Justice Proctor says of that instrument:

"It is questionable whether some of it would be deemed relevant or competent in proof of the offense. Every indictment should be confined to a clear and dispassionate statement of essential facts. . . . Ordinarily, improper matter in the indictment, unnecessary to support the charge, will not vitiate an indictment. It will be treated as surplusage and disregarded. But I doubt if such treatment would suffice to relieve these defendants of the prejudice likely to arise by an indictment which smacks so much of a highly colored argumentative discourse against them. It must be remembered that when a case is finally submitted to a jury for their secret deliberations the indictment goes with them."

From which it is perhaps a reasonable inference that Assistant Attorney-General Arnold will caution Federal grand juries—or whoever writes their indictments—to mend their manners toward persons they hale before them.—Pacific Coast *Wall Street Journal*, August 1.

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#### Hospital Aid Fears Cited

*Catholic Objection to Federal Assistance Explained in Debate*

Denver, Aug. 7 (AP).—The nation's health chief and a Catholic hospital leader debated tonight the issue of increased Federal aid for private hospitals before the National Conference of Catholic Charities.

"I can see no fundamental objection to providing Federal assistance for the building and modernizing of non-profit hospitals and feel that public funds should be available to care for needy patients in voluntary as well as



public hospitals," declared Surgeon-General Thomas Parran of the United States Public Health Service.

#### Church Fears to Yield

"The Catholic Church fears to yield an iota in the approach to the problem of the responsibility for the indigent," countered Rev. Alphonse M. Schwitalla, S. J., of St. Louis, president of the Catholic Hospital Association.

Doctor Parran said the proposed national health program of expanded Federal aid intends that "the widest latitude should be left to the states."

#### Opposition Explained

Explaining the Catholic hospital's "crisis reaction" of opposition to the proposed Federal program, Father Schwitalla said:

"The Catholic hospital fears the necessary impersonalities of sickness and health care under Government contact.

"It is concerned with the maintenance of the spirit of our religious orders, their traditions and the inspiration of the lives of their founders and their hero members.

#### Seen as Menace

"It views with a measure of apprehension the mounting subsidies that might be voted by Congress for official programs of medical care because the partnership between the public and private agency might be weighted by goods of this earth."

Father Schwitalla declared the program "constituted a threat to the individuality of the Catholic hospital, and hence to its continual service, and hence to its continued existence."

#### Aid Proposed

Doctor Parran said the national health program proposed aid to hospitals because "the modern physician makes increasing use of facilities for the diagnosis and treatment of disease which are most effectively supplied by hospitals."

"The national health program, therefore, provides aid for the construction and maintenance of hospitals—though only where needed—and for the support of existing hospitals—public, church and voluntary alike—especially in distressed and rural areas."

#### Fear Dictatorship

The Catholic Hospital Association had contended that a veritable dictatorship by the Federal Government of the nation's medical facilities would result from the program.

"It is not proposed," Doctor Parran continued, "that the health and medical services of the country be federalized.

"The widest latitude should be left to the states in developing procedures and policies best adapted to their own needs."—Los Angeles Times, August 8.

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#### Convention

##### Nurses' Four-Day Session Ends

The California nursing organizations closed their four-day convention here last night, August 17, with a banquet at Hotel St. Francis, attended by more than five hundred delegates.

Organizations represented were the California State Nurses' Association, the California League of Nursing Education, and the California State Organization for Public Health Nursing.

Pauline Gage of Pomona was chosen president of the California State Nurses' Association; Margaret Tracy of University of California Hospital, first vice-president; Edith H. Smith of Stanford Hospital, second vice-president; and director: Gertrude Folendorf of San Francisco, Edna L. Hedenberg of Los Angeles, and Jennie W. Gardner of Davis.—San Francisco Chronicle, August 18.

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#### State Needy Aid Costs Triple

##### Records Disclose Great Increase in Number of Cases in Three Years

Sacramento, Aug. 21 (Exclusive).—The cost to California of granting aid to the elderly, the needy blind and dependent children has approximately tripled in the last three years, records of the State Department of Social Welfare disclosed today.

In June of this year, the cost of the three aids amounted to \$5,256,653, being divided as follows: Elderly aid, \$4,282,347; blind aid, \$311,035; dependent children aid, \$663,271.

In July of 1936, the State paid out only \$1,823,792, as follows: Elderly aid, \$1,405,267; blind aid, \$145,241; dependent children aid, \$273,104.

The records show that the major part of the increase is due to the jump in the number of cases. During the time the number of pension cases has jumped from 44,905 to 131,879, blind from 4,271 to 6,476 and children from 20,744 to 38,679.—Los Angeles Times, August 22.

## LETTERS

### Subject: Prenatal and Premarital Laws.\*

(COPY)

San Francisco, August 23, 1939.

Roy E. Thomas, M. D., Chairman  
California Medical Association Committee on  
Health and Public Education  
San Francisco, California  
Dear Doctor Thomas:

#### Re: Premarital Examinations

Replying to your letter of July 26, 1939, in which you requested a brief opinion as to the duties and obligations of physicians and laboratories in the State of California under Chapters 127 and 382 of the California Statutes of 1939, which become effective September 19, 1939, our opinion is as follows:

*Chapter 382. Premarital Examination.*—The contents of this statute are as follows: Before any applicant for a marriage license can receive the same, he must present a certificate from a duly licensed physician, which certificate shall state that the applicant has been given such examination, including a standard serological test, as may be necessary for the discovery of syphilis, made not more than thirty days prior to the date of issuance of such license, and that in the opinion of such physician, the person either is not infected with syphilis, or if so infected, is not in a stage of that disease which is or may become communicable to the marital partner. Any person who is by law able to obtain a marriage license is able to give consent to any examination and test required by the statute. The certificate is made on a form provided and distributed by the State Department of Public Health.

The type of test which can be used to comply with the statute shall be a test for syphilis approved by the California State Department of Public Health and the laboratory which can make such test may be any laboratory approved by the California State Department of Public Health, or any other laboratory, the director of which is licensed by said State Department of Public Health according to law. When a laboratory makes a test, it submits the original of a laboratory report to the physician, together with the certificate form which the physician will make out for the patient. A copy of the laboratory report is kept by the laboratory and a second copy sent to the State Department of Public Health.

The certificate, laboratory statement or report and all other papers connected with these examinations are declared to be confidential, and neither the physician nor any other party is allowed to divulge the contents of such report to any person other than the state or local health officers or their duly authorized representatives.

Other sections of the statute deal with instances in which parties may obtain a marriage license without examination by application to the Superior Court, penalty for misrepresentation by applicant and expenses of administration of the statute. One other important provision is to the effect that whenever any question arises as to the accuracy of tests, it is mandatory upon the State Department of Public Health to accept specimens for checking purposes from any district in the state.

#### COMMENT

(a) *Effect Upon Physicians.*—Most of the duties and liabilities of physicians under this statute can be clearly ascertained from the above. However, there are one or two points which should be kept in mind. The information *must be kept confidential*. In addition to the principles of medical ethics which do not permit one to divulge confidential communication, the statute provides that anyone

\* See also, on pages 145-146, 200-202, and 208-211.

who gives out information concerning a premarital test is guilty of a misdemeanor.

*Possibility of Liability of Physicians.*—There are two possible sources of liability, as follows: (1) A physician who refuses to grant a certificate may be sued by the applicant if it later develops that the certificate should have been granted; and (2) A physician may grant a certificate though syphilis in a communicable stage is present and may be subsequently sued by the other spouse for damages sustained as a result of contracting the disease from the applicant.

The only suggestion that can be made with reference to avoiding all possible liability is to warn physicians *to use the utmost care* in selection of laboratories, in analyzing the laboratory report and in stating their conclusion. It is a well-established principle of law that a plaintiff cannot succeed in an action against a physician merely by establishing that the physician was guilty of an error of judgment; provided, however, that the physician is qualified and has done what he thinks best after a careful examination. This rule does not relieve a physician from his duty to use his best judgment. It should also be suggested that a physician should constantly keep himself abreast of the times and acquaint himself with any new developments in the field of premarital examination. *Most important is to bear in mind constantly that the actual test used must be of a type approved by the State Department of Public Health.*

(b) *Laboratories.*—In addition to the brief statement, set forth above, of the duties and obligations imposed by the statute, it should be stated that the certificate furnished to the applicant is accompanied by a statement from the person in charge of the laboratory making the test, or from some other person authorized to make such reports, setting forth the name of the test, the date it was made, the name and address of the physician to whom the test was sent, and the name and address of the person whose blood was tested. Both the forms for laboratory reports and certificate are furnished to the laboratory by the State Department of Public Health.

*Standard Serological Test.*—Although the statute refers to the test which should be given as a single test, the State Director of Health, Dr. Walter M. Dickie, has ordered that all blood samples taken must be submitted to two types of test for disease detection. Each applicant must pass a Wassermann type test and a precipitation test. Of the Wassermann type he has approved the Kolmer, Eagle and Craig tests, and of the precipitation group, he has approved the Kahn, Kline, Eagle and Hinton tests.

*Possibility of Liability of Laboratory.*—Although the statute provides that whenever there is a question as to the accuracy of these tests, specimens can be submitted to the State Department of Public Health for final determination, the need for great care by the laboratory cannot be overemphasized. A mistake caused by the negligence of the laboratory may result in liability to both the applicant and the referring physician and, in addition, to the other spouse.

Chapter 127. Prenatal Examination.—Section 1 of this statute reads as follows:

"Every licensed physician and surgeon or other person engaged in prenatal care of a pregnant woman or attending such woman at the time of delivery shall obtain or cause to be obtained a blood specimen of the pregnant or recently delivered woman, at the time of the first professional visit or within ten days thereafter. The blood specimen thus obtained shall be submitted to an approved laboratory for a standard laboratory test for syphilis. For the purposes of this act, an approved laboratory shall be a laboratory approved by the California State Department of Public Health, or any other laboratory the director of which is licensed by said State Department of Public Health ac-

cording to law. In submitting such specimen to the laboratory the physician shall designate that this is a prenatal test or a test following recent delivery."

Other sections of the Act state that a standard laboratory test shall be a test for syphilis approved by the California State Department of Public Health, that in case of question of accuracy of tests prescribed in the Act, the State Department of Public Health must accept specimens for checking; that the Department of Public Health shall furnish the laboratory report form which must be distributed to the laboratories upon request; that the laboratory must submit the original report to the physician, keep a copy for itself, and send copies to the State Department of Public Health; that the reports must be kept confidential and can only be inspected by an authorized representative of the California State Department of Public Health; and, finally, Section 5 provides as follows:

"Sec. 5. Any licensed physician and surgeon, or other person engaged in attendance upon a pregnant woman or a recently delivered woman, or any representative of a laboratory who violates the provisions of this Act shall be guilty of a misdemeanor; provided, however, every licensed physician and surgeon or other person engaged in attendance upon a pregnant or recently delivered woman, who requests such specimen in accordance with the provisions of Section 1, and whose request is refused, shall not be guilty of a misdemeanor."

#### COMMENT

(a) *Duties and Obligations of Physicians.*—It should be noted that there are two situations in which the physician must act under the statute. The situations and acts required are as follows:

1. Every physician who is engaged in prenatal care of a pregnant woman must obtain a specimen at the time of the first professional visit or within ten days thereafter.
2. Any physician who is attending a woman at the time of delivery must obtain a specimen.

The statute is not clear as to the period of time after delivery in which the specimen can be obtained. A reasonable construction of the statute would seem to be that the specimen should be obtained within ten days after delivery of the child.

(b) *Liability and Procedure in Event of Patient's Refusal to Permit a Test.*—Section 5 of the statute is somewhat ambiguous in that it provides that a physician need only make a request for the specimen in accordance with the provisions of Section 1. However, since Section 1 imposes an absolute duty to obtain the specimen, the particular type of request which should be made is indefinite.

All physicians must take precautions to have definite proof that such a request was made. Thus, the attending physician, if possible, should secure a signed statement from the patient. If that is impossible, then, at least one disinterested witness should be present when the request is made and refused. In addition, after an oral refusal a written request should then promptly be made.

Since the physician is not, as in the premarital examination law, required to render an opinion as to the existence or nonexistence of syphilis, liability for mistake on that score is not present.

(c) *Duties and Responsibilities of Laboratory.*—The same comment made in the discussion of negligence by laboratories in making premarital tests applies to the tests required under this law.

As the duties and obligations of doctors of medicine under these statutes are far-reaching and of great public importance, it is suggested that all members of the California Medical Association be acquainted with the exact provisions thereof and their duties and possible liabilities thereunder.

111 Sutter Street.

Very truly yours,

(Signed): HARTLEY F. PEART.



**Subject: Premarital examinations under the New York law.\***

In connection with the California laws on premarital examinations, recently enacted, the following communication from the New York Department of Health may be of interest:

(COPY)

STATE OF NEW YORK  
DEPARTMENT OF HEALTH

Albany, New York, August 4, 1939.

*To the Editor:*—The New York State Legislature in 1938 passed a law requiring a physical examination, including a standard serological test for syphilis, on all applicants for marriage licenses within the state.

Several instances have been called to my attention in which residents of other states have had difficulties in securing marriage licenses in New York State because of misinterpretations of the law by themselves or their examining physicians. In order that such inconveniences may be avoided, I should greatly appreciate it if you would, through your Journal, inform the medical profession of your state of the provisions of the New York law.

That part of the Act as amended and effective July 1, 1939, referable to those examinations, reads as follows:

"Physician's examination and serological test of applicant for marriage license. (1) Except as herein otherwise provided, no application for a marriage license shall be accepted by the town or city clerk unless accompanied by or unless there shall have been filed with him a statement or statements signed by a duly licensed physician or by a commissioned medical officer of the United States Army, Navy, or public health service that each applicant has been given such examination, including a standard serological test, as may be necessary for the discovery of syphilis, made on a day specified in the statement, which shall not be more than the thirtieth day prior to that on which the license is applied for, and that, in the opinion of the physician, the person therein named is not infected with syphilis, or if so infected is not in a stage of that disease whereby it may become communicable."

The law further states that "a standard serological test shall be a laboratory test for syphilis, approved by the State Commissioner of Health, and shall be performed by the state department of health, or in the city of New York by the department of health of such city, or at a laboratory approved for this purpose by the state department of health, or in the city of New York by the department of health of such city."

I offer the following comments relative to its interpretation:

1. A duly licensed physician means any physician duly licensed to practice medicine in the state in which he resides or in which he maintains his office.

2. The date of examination is interpreted to mean the date on which the specimen of blood is taken.

3. The state commissioner of health and the state department of health referred to mean Commissioner of Health of the State of New York and the New York State Department of Health.

4. Laboratory tests made as a part of premarital examinations for persons applying for marriage licenses in New York State, outside of New York City, as well as the laboratories in which these tests are performed, must be approved by the New York State Commissioner of Health. For administrative reasons laboratories within New York State only have been approved for tests on applicants for licenses in the state, exclusive of New York City.

5. The Commissioner of Health of the city of New York has approved certain out-of-state laboratories for the performance of serological tests on persons applying for mar-

riage licenses in New York City. Requests for information concerning laboratories approved by the New York City Department of Health should be addressed to that department at Worth and Centre Streets, New York City.

*Outline of procedures for examination of out-of-state applicants for marriage licenses in New York State, exclusive of New York City:*

1. Any physician duly licensed to practice medicine in the state in which he resides or in which he maintains his office may perform the necessary physical examination.

2. The specimen of blood must be sent to an approved laboratory in New York State. It is suggested that specimens be sent to the Division of Laboratories and Research, New York State Department of Health, New Scotland Avenue, Albany, New York, where examinations will be made free of charge.

3. The specimen should be labeled "for premarital examination."

4. The use of air mail is recommended when the specimen must be sent a great distance.

5. Upon completion of the test the laboratory will send the physician, in addition to the usual laboratory report, a certificate to the effect that the serological test was performed as a part of a premarital examination.

6. If, in the opinion of the examining physician the applicant is free from syphilis or does not have the disease in a stage which may become communicable, he should complete the certificate as indicated thereon.

7. The certificate is given to the applicant who will submit it to the clerk when the marriage license is applied for.

If these procedures are followed, there should be no difficulty in obtaining the license.

For further information relative to the marriage of persons in New York State, exclusive of New York City, communications should be addressed to the Division of Syphilis Control, New York State Department of Health, Albany, New York.

Very truly yours,

(Signed): EDWARD S. GODFREY, JR.,  
Commissioner of Health.

**Subject: Fight against nostrums and quackery. Request for coöperation.**

(COPY)

FEDERAL TRADE COMMISSION  
WASHINGTON

July 14, 1939.

*To the Editor:*—In a recent conference with Dr. Olin West, a problem of mutual interest to the medical profession and the Federal Government was discussed. It is at the suggestion of Doctor West that I am writing you this letter.

At great hazard, not infrequently involving costly and harassing suits for libel, the American Medical Association has for many years been conducting a valiant fight against nostrums and quackery. Through these means an invaluable service has been rendered to the profession as a whole, and to every individual member. Various aspects of this service should be obvious to any physician. The Association, however, is without regulatory powers. Through the pages of the *Journal* and otherwise it can expose falsehood and advise against it, but it lacks the authority to specify and enforce the limits beyond which the advertiser of a product may not go in representing to the public the merits of a proprietary preparation.

Fortunately, however, there is an agency clothed with this authority and charged with this responsibility. This is the Federal Trade Commission which has jurisdiction over false and misleading advertising. In this capacity the Federal Trade Commission is the medium through which the ambitions of the medical profession with respect to false advertising can be realized. It is believed, therefore, that the successful accomplishment of this objective should

\* For information concerning the California premarital law, refer to CALIFORNIA AND WESTERN MEDICINE, issue of August, 1939, on page 139.

be of vital interest to every member of organized medicine. It is, however, a problem which will require the unreserved support of medical organizations and their constituent membership. Whenever a case is contested it is necessary to introduce competent medical testimony in support of the Government's charges. You, as the secretary of the State Medical Society, know the proper men to whom to appeal within your state for such assistance. Moreover, an appeal from you is much more direct and personal than such an appeal coming from me or from even the office of the American Medical Association in Chicago.

When hearings are necessary it is the policy of the Federal Trade Commission to schedule the hearing at or near the place where the headquarters of the respondent are located, so that little or no travel will be involved. I am in a position also to assure you that medical witnesses will be treated courteously and that every possible consideration will be given to the conservation of their valuable time, and to other items to suit their convenience. Though it is regretted that the Federal Trade Commission has not been provided with funds with which to pay expert witness fees, it is believed that this problem is of as much concern to the medical profession as it is to the Federal Government, and that physicians in performing this service as acting in the interest of themselves and the profession as a whole.

I will very much appreciate an expression from you as to whether or not you wish to cooperate with me in the manner indicated, if and when the demand for such assistance arises.\*

The recognition of the medical and public health significance of this problem is well illustrated by the fact that there has been recently created in the Federal Trade Commission a Medical Advisory Service to which I, as an officer of the Public Health Service, have been assigned as director.

Thanking you for an early reply, I am

Very truly yours,

(Signed) : K. E. MILLER,  
Senior Surgeon, United States  
Public Health Service.

✓ ✓ ✓

(COPY)

FEDERAL TRADE COMMISSION  
WASHINGTON

August 15, 1939.

*To the Editor:*—I am pleased to acknowledge your letter of July 25, in which you state that the facilities of the California Medical Association will be available in connection with the promotional work of the Federal Trade Commission in its campaign against nostrums and quackery.

It may be of interest to you to know that during the past two or three months the Federal Trade Commission has been conducting a series of hearings on a number of cases of this nature in California. The members of your Association have already given invaluable assistance in this connection. I want to assure you that the Federal Trade Commission is very grateful for this cooperation and especially gratified to know that when this service will be needed in the future it will be readily available.

In reply to your inquiry as to whether there would be any objection to the printing of my letter of July 14 in the official journal of the California Medical Association, you are informed that I would be very glad indeed to have you use my letter in this way.

Very truly yours,

(Signed) : K. E. MILLER,  
Senior Surgeon, United States  
Public Health Service.

\* Reply was made that the officers and members of the California Medical Association would be happy to give cordial cooperation.

**Subject: Letter of commendation to the secretary of the Board of Medical Examiners of the State of California.**

BOARD OF MEDICAL EXAMINERS  
STATE OF CALIFORNIA

August 14, 1939.

*To the Editor:*—At a recent meeting of the California State Board of Medical Examiners it was voted that I send to you the enclosed certified copy of a letter from the executive officer of the State Personnel Board, Louis J. Kroeger, sent by him to Dr. C. B. Pinkham of the Board of State Medical Examiners. It was believed that the statement herein contained not only concerns Doctor Pinkham as Secretary of the Medical Board, but more in particularly concerns all licensed regular men as to the manner of the transaction and records of the Board since 1913.

If you deem it to be in order, and proper, I believe that it would be of interest for this enclosed copy to be published in CALIFORNIA AND WESTERN MEDICINE. We would be pleased.

The Board would wish that their suggestion in this matter be entirely subject to your approval and judgment.

Thanking you for its consideration,

Sincerely and cordially,

(Signed) : C. L. ABBOTT, M. D.,  
Vice-President.

✓ ✓ ✓

(COPY)

STATE PERSONNEL BOARD

Sacramento, March 14, 1939.

Dr. C. B. Pinkham  
Board of State Medical Examiners  
State Office Building  
Sacramento, California.

Your record of state employment has come to my attention, from which I learn that you have recently completed twenty-six consecutive years of state service. I congratulate you on this record.

In the period of time during which you have served the public many changes in the organization and methods of state government have taken place, including the strengthening and extension of our merit system.

Even though we have had a civil service system in one form or another since 1913, records of such length of service as you have enjoyed are still the exception rather than the rule, and we pause to pay tribute to it.

We hope you may continue as long as you wish, to experience the satisfaction that a long and useful service must bring to you.

1025 P Street.

Very truly yours,

(Signed) : LOUIS J. KROEGER,  
Executive Officer.

**Subject: Typhoid carriers and tuberculosis contacts in domestic help.**

CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF PUBLIC HEALTH

August 15, 1939.

*To the Editor:*—The enclosed letter has been sent to the state health officers throughout the United States and its territories as well as to full-time county health officers and city health officers in our larger communities.

The problem discussed in this letter is one of definite importance. Undoubtedly, appropriate action will be initiated in many sections, and it is hoped proper regulations set up in order to control this definite hazard to the children of this country.

Sincerely,

J. C. GEIGER, M. D., Director.



(COPY)

*The Typhoid Fever Carrier and the Active Tuberculosis Case in Private Family Employment*

Recently this department has been investigating two cases of typhoid fever in children of different families and a case of tuberculous meningitis in a child fifteen months of age.

In the first family suspicion centered on a domestic, E. A., female, age 46 years, who came to San Francisco from Norway in February, 1939. During her employment with family No. 1, a boy, age 13 years, came down with typhoid fever. Investigation of her stool specimens on four different occasions yielded one positive, indicating that she was a carrier of *B. typhosus*. It is also interesting to note that this domestic had a Food Handler's Certificate from a well-known health department.

Typhoid fever carrier No. 2, M. S., female, age 35 years, native of New Orleans, came to San Francisco in January, 1938. After she was in service ten months one of the children of the family came down with typhoid fever. Routine epidemiologic investigation of this second case of typhoid fever disclosed that the domestic, M. S., was a carrier of *B. typhosus*. It is significant that neither of these carriers ever gave a history of typhoid fever.

Epidemiologic investigation of a recently reported case of tuberculous meningitis occurring in a fifteen months old child revealed as the original contact focus a domestic, L. B., female, age 55 years, native of San Francisco. During the last few years she had a productive cough, but appeared to be healthy up to two months ago.

The two domestics revealed to be typhoid fever carriers and the domestic who finally collapsed with active pulmonary tuberculosis bring to the forefront the vital importance of physical and laboratory examinations of domestics who handle children, examination particularly for syphilis, tuberculosis, and for carrier conditions such as typhoid fever and diphtheria. Unfortunately, the laboratory findings in the latter two diseases may be negative at the time of examination and subsequently become positive. Again, it is the usual procedure that only one examination is made, and therefore certification is of doubtful value.

It is recommended, however, for earnest consideration that families employing domestics, and employment agencies specializing in this type of employment, offer further safeguards for the health of children in regulating and demanding physical and laboratory examinations that may be pertinent to the occasion and type of service. Your consideration of this problem will be appreciated.

## MEDICAL JURISPRUDENCE†

### IMPORTANCE OF KEEPING COMPLETE NOTES

By HARTLEY F. PEART, ESQ.  
San Francisco

A physician can never determine what particular circumstances may subsequently develop into litigation or other controversy. Thus, in order to render the greatest possible aid to his patient and to himself, a physician should make very complete reports or notes concerning everything he does. This applies to records of operations and hospital after-care as well as to records of office calls.

Typical of the conflicts into which the physician may be drawn are disputes in criminal proceedings as to the nature

of wounds and as to the manner in which they were received. Physicians have been subpoenaed to describe wounds long after the examination was made and, if experienced in such matter, to give opinions as to the manner in which the wounds were inflicted. Notes taken at the time of the examination are very helpful in recalling such facts.

Similarly testimony of receiving physicians as to the extent of lacerations, bruises and other injuries received in accidents is called for in determining the extent of damages suffered. Often this is not easy; for instance, when the witness may be asked whether or not the injuries were sufficiently extensive to have caused a subsequently appearing tubercular condition. Not only the visible condition of the patient, but, under some circumstances, even statements made by the patient at the time of treatment become highly important. Thus, when a patient in giving a history of his case states how he feels and acts, such statements may later be used against him as admissions, and under some circumstances used for his benefit.

In a local suit in which the writer took part, a number of physicians were sued for a million dollars as damages for an alleged false imprisonment. The plaintiff, in the middle of the night, had been found in bed singing, laughing, and apparently entirely out of her mind. After being held at a receiving hospital, she was committed to an asylum for a number of months. Suit was brought upon the theory that she had never been insane, but had undergone an intense nightmare, and while still under its influence had been so doped up by the physicians at the receiving hospital that she was unable to speak coherently to the committing judge. The case was dismissed, but had it ever come to trial, testimony of the physicians at the receiving hospital as to the exact nature of her mumblings and reactions would have been highly important to the success or failure of the litigation, and notes recalling such facts to mind, highly important to the witnesses.

Attending physicians are often the only persons to hear dying declarations, which may identify a wrongdoer. They may also hear statements made during a deceased's last illness, which statements become material in many proceedings, especially probate proceedings.

Although a difficult thing to do in many instances, it is wise to secure from the patient a written consent to certain procedures. Thus, before operation the patient's consent in writing should be obtained. This writing should contain a brief statement showing that the patient understands the nature of the operation. Again, when a patient insists on leaving a hospital against his physician's advice, a written statement should be obtained acknowledging the fact that he has been advised against the departure. Again, when a physician voluntarily or involuntarily relinquishes a patient to another physician, the patient's written consent to the same should be procured. Finally, a constant source of irritation is the plaintiff who refuses to have x-rays made although his physician recommends that he do so. When the treatment turns out unsatisfactorily, the patient often denies that any such recommendation was made. In such cases it is advisable for the physician before continuing the treatment to secure from the patient a signed statement that he refused to have an x-ray taken.

The importance of keeping complete notes can perhaps be stressed by stating that, in the opinion of many eminent jurists, the facts are more troublesome than the law in any legal problem. Judge Benjamin Cardozo once said:

More and more we lawyers are awakening to a perception of the truth that what divides and distracts us in the solution of a legal problem is not so much uncertainty about the law as uncertainty about the facts—the facts which generate the law. Let the facts be known as they are, and the law will sprout from the seed and turn its branches toward the light.

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

## SPECIAL ARTICLES

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1. *Essentials of a Registered Hospital.*
2. *"Physiological Factors in Accident Prevention."*
3. *California Physicians' Service.*
4. *Premarital Law.*
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6. *Proposed Chiropractic Initiative Law.*
7. *Chiropractic: Scope of Chiropractic in California.*
8. *United States National Health Program: Wagner Bill S. 1620.*

## ESSENTIALS OF A REGISTERED HOSPITAL\*

Prepared by the Council on Medical Education and Hospitals of the American Medical Association

*General Statement.*—Hospitals should be organized and conducted primarily for the purpose of providing facilities where the sick and the injured of the community may be given scientific and ethical medical care.

Registration is a basic distinction between all recognized hospitals and those that are refused recognition. It is a prerequisite to the consideration of a hospital for approval for interns or for residencies in specialties.

The registration of hospitals, the approval of hospitals for interns, approval for residencies in specialties, and all other service of the Association regarding hospitals is carried on by the Council on Medical Education and Hospitals. Separate essentials have been adopted for each of these types of approval.

It is the desire of the Council to cooperate in every way for the improvement of hospital service, whereby the sick and injured may be provided with scientific and ethical medical care.

The Council does not have nor does it assume legal authority over any hospital. It recognizes clearly that the officers in charge of such institutions have the unquestioned right to conduct the hospitals in any way they may deem wise. If a hospital desires to have its name appear on the American Medical Association Hospital Register and thus have the endorsement of that Association, it should be willing to comply with the principles which the Council on Medical Education and Hospitals considers necessary.

I. *Organization.*—1. The organization should consist of a supreme governing body qualified to administer a hospital. This may be a board of trustees or directors, a partnership, or an individual. Such a board, partnership, or individual must assume final authority and responsibility for the administration.

2. There must be a well-qualified executive officer who may be designated as administrator, superintendent or director, or by some other title. This person should be responsible to the governing body for carrying out its policies. The executive officer should be assisted by competent personnel adequate to the needs of the institution.

II. *Physical Plant.*—1. The hospital plant should consist of modern, safe buildings maintained in a sanitary condition, provided with fire protection and adequately equipped and furnished for the comfort of patients. Equipment for diagnosis and treatment should be reasonably complete for all types of work the staff purports to carry on in the hospital.

\* "Essentials of a Registered Hospital," as here given, bring the same up to the present. A former and less complete outline appeared in CALIFORNIA AND WESTERN MEDICINE, July, 1939, on page 69.

Reprinted from *The Journal of the American Medical Association*, May 27, 1939, Vol. 112, pp. 2166-2168. Copyright, 1939, by American Medical Association.

2. Institutions accepting surgical and obstetric patients should provide a modernly equipped operating room, a delivery room, and a nursery. Hospitals that are strictly limited in the service they offer are not expected to have the complete organization and equipment of a general hospital.

III. *Medical Staff.*—1. Since the medical staff is the most important factor in the delivery of medical service to patients, too great care cannot be exercised in the selection of staff members. The staff should be limited to physicians holding the degree of doctor of medicine from medical colleges acceptable to the Council on Medical Education and Hospitals, having satisfactory qualifications as to training, licensure and ethical standing, and to dentists who are graduates of recognized dental colleges and whose professional ability and standing are known to the medical staff.

2. Osteopaths, chiropractors, and other cult practitioners outside the scope of regular medicine, or unethical physicians, may not be permitted to use the hospital's facilities. They may not enter data on the records, carry out diagnostic procedures or treatments, or in any way assist in doing this work.

3. The form of organization of the staff is determined by the size and the activity of the hospital in accordance with its needs.

4. In very small hospitals where there are few physicians and where an elaborate organization is not practicable, there should still be some authority competent to pass upon the qualifications of those who seek to use the hospital's facilities. Particular care should be exercised in the assignment of surgical privileges since it is essential for the safety of patients that both the surgeon and his assistants be properly qualified.

5. Where further organization is needed, it should consist of such officers as president, secretary, and others; and committees, such as executive, medical records and credentials, elected or appointed according to the constitution and by-laws.

6. Staff departments, such as medicine, obstetrics, and surgery, should be organized as may seem wise.

7. Staff meetings should be held for the review of the work of the hospital, the discussion of results, the reports of autopsy and pathologic studies, the presentation of papers and such other matters as concern the professional work of the hospital.

8. Minutes of all staff meetings and attendance records shall be kept by the secretary.

IV. *Pathology and Laboratory Diagnosis.*—1. The laboratory facilities should provide as complete a service as is practicable.

2. The pathologist should preferably be a physician who holds the certificate of the American Board of Pathology. Where it is not possible to employ the services of a pathologist directly, arrangements should be made for a consulting service for tissues, postmortem examinations, and the interpretation of the more difficult tests and examinations in clinical pathology. All surgical tissues should be examined, described and diagnosed by a pathologist.

3. The department should be equipped for all routine procedures and for whatever additional tests and examinations are frequently called for by the staff.

4. At least one well-trained clinical laboratory technician should be employed.

5. Reports of all work done in the department should be kept on file.

6. Autopsies. Every effort should be made to secure consent for the performance of autopsies. They should be conducted by a qualified pathologist or under his supervision, and protocols, including clinical summaries, should always be filed.

V. *Radiology.*—1. The responsibility for all radiologic examinations must rest on the physician-roentgenologist who is head of the department. His findings and con-



clusions for all examinations should be placed in the patient's chart. Nothing in this provision should preclude additional study and interpretations by qualified attending physicians on the staff.

2. The physician-roentgenologist should be preferably one who is a diplomate of the American Board of Radiology or a physician whose qualification are acceptable to the Council on Medical Education and Hospitals of the American Medical Association.

3. It shall not be the policy of the hospital to make a profit from the department of radiology.

**VI. Anesthesia.**—The anesthesia service should be under the direction of competent medical personnel whenever possible. If a qualified specialist in anesthesiology is not available, supervision may be assigned to some member of the staff who has had special training in this field or to a nurse anesthetist whose qualifications are acceptable.

**VII. Nursing Service.**—1. A competent nursing service should be provided, adequate for complete coverage for both day and night periods, and for surgical and obstetric supervision. All nursing should be supervised by registered graduates. Hospitals that do general surgery should have a trained operating-room nurse.

2. Dietetics. The services of one or more graduate dietitians, as may be required, should be available for supervision of regular and special food services. Where graduates cannot be employed, these functions should be assumed by some competent person.

**VIII. Pharmacy.**—The handling of drugs should be properly supervised and should comply with all the legal regulations. Accurate records should be maintained. A qualified person should be placed in charge, preferably a graduate pharmacist; whatever arrangement is made, all prescriptions should be filled by a graduate pharmacist.

**IX. Medical Records.**—1. An adequate record system should be maintained in all departments. No certain forms are recommended since requirements vary greatly according to the size and type of hospital. Samples of suitable forms for all departments may be readily obtained from publishers of hospital records.

2. Case histories and physical examinations should be recorded immediately following the patient's admission. In no case should it be longer than twenty-four hours after admission. The history, physical examination, routine laboratory work, and provisional diagnosis should be recorded before an operation except in emergencies. The attending physician is directly responsible for the accuracy and completeness of case records, whether prepared by him or by another.

3. The usual case record consists of identification data, chief complaint, past medical history, family history, history of present illness, physical examination, provisional diagnosis; special reports such as consultations, clinical laboratory, pathology, x-ray, and the like; medical or surgical treatment, progress notes, final diagnosis, condition on discharge, and follow-up records; autopsy report when available.

4. No case record should be filed until it is complete and then only after it has been reviewed and signed by the attending physician.

5. Monthly and annual analyses of hospital service should be made in order that the staff may be in a position to improve its service.

**X. Ethics.**—In order that a hospital may be eligible for registration, it will, of course, be expected that the staff and management conform to the principles of medical ethics of the American Medical Association with regard to advertising, commissions, division of fees, secret remedies, extravagant claims, overcommercialization, and in all other respects.

For additional information, write to Council on Medical Education and Hospitals, 535 North Dearborn Street, Chicago.

## "PHYSIOLOGICAL FACTORS IN ACCIDENT PREVENTION"\*

It is surprising how well the public has taken to the driving of automobiles. The physical and mental examinations given are very superficial in type, and thoroughly inadequate. This must be stepped up some, but within the limits of being practical and not debarring the great masses of people from buying cars, enjoying their pleasure, or interfering with the business of automobile manufacture and sale.

Locomotive engineers practice for years as firemen before being put upon a passenger engine and then operate over private rights of way. But drivers of motor vehicles possess little or no previous training in safe use of a motor car.

No individual should receive his first license after sixty years of age. This should not be construed as limiting people over sixty years of age from driving, provided they have driven before. Just as learning to swim and ride a bicycle in childhood becomes second nature, so does driving, irrespective of age of the individual.

Health examinations should not be too strict, and a great deal of discretion must be allowed, as many an individual who is either deaf or has marked diminution of vision may, nevertheless, be a safe driver.

What must be emphasized is one's judgment of distance, color sense, and his peripheral vision.

Certain heart conditions, tendency toward apoplexy, marked high blood pressure, deformities, excessive use of intoxicating liquors, must be taken into account.

Vitamin A deficiency can be definitely determined by the biophotometer. Thus, individuals unusually sensitive to bright glare, or with insufficient vision at night, can be treated, overcoming this trouble.

Polaroid lenses will soon be used in the headlights of all cars, while the drivers will either wear polaroid glasses at the opposite axis, or have a polaroid strip which they can pull down over the windshield; thus the horizontal rays in one will be neutralized by the vertical rays in the other, and under these conditions strong headlights, 100 candle power or more, can be used with safety.

Highway patrolmen should not only have headlight and brake inspection, but should examine drivers relative to their remembrance of the road regulations and traffic signals.

Highway patrolmen are the finest body of officers in the country. Can be likened to the Canadian Mounted and the Texas Rangers. They are far too few in number. The state should have a minimum of 2,500 to take care of vacations, sickness, and extra night work, in order effectively to patrol the highways and furnish the maximum traffic safety control.

## CALIFORNIA PHYSICIANS' SERVICE†

DR. RAY LYMAN WILBUR, *President*

A service organization of the physicians of California, offers complete medical and surgical care; and Associated Hospital Service of Southern California, Insurance Association of Approved Hospitals, and Intercoast Hospitalization Insurance Association offer hospitalization. All for a small monthly fee.

A small monthly payment will keep your doctors' and hospitals' bills within your budget.

\* Highlights of address delivered at California Safety Council Conference on July 25, 1939, at the Biltmore Hotel, Los Angeles, by Walter Scott Franklin, M. D., Vice-President of the California Safety Council.

From the California Safety Council, 427 West Fifth Street, Los Angeles, and 1 Drumm Street, San Francisco.

† Text here given is a reprint of an eight-page folder received from California Physicians' Service on August 9, 1939.

For other information concerning California Physicians' Service, see on pages 184-186.

## NONPROFIT MEDICAL SERVICE FOR CALIFORNIA

The doctors of California have organized California Physicians' Service to give to people of small income the best of medical care, which these people could not otherwise afford.

Good medical care means complete medical care—whatever is needed by the patient, without limit of amount or kind.

California Physicians' Service is, therefore, not an insurance company, but a service organization. No limits are set on the number of doctor's visits, on specialists' or surgeons' services, on the amount of x-ray diagnosis (or x-ray or radium treatment) or the amount or cost of laboratory tests that may be needed. Within the time periods shown in this folder, Service is limited only by the needs of the patient for each illness or injury requiring treatment.

✓ ✓ ✓

California Physicians' Service, Associated Hospital Service of Southern California, Insurance Association of Approved Hospitals, and Intercoast Hospitalization Insurance Association are all nonprofit service institutions.

There are no stockholders and no dividends. Officers and directors serve without pay. Every possible dollar buys medical and hospital services. Medical services are guaranteed by five thousand physicians of California.

✓ ✓ ✓

## CALIFORNIA PHYSICIANS' SERVICE

220 Montgomery Street, San Francisco  
448 South Hill Street, Los Angeles

Administrative Members—A. E. Anderson, M. D.; E. Manchester Boddy, Rev. Ernest Caldecott, Charles A. Dukes, M. D.; Calvert L. Emmons, M. D.; Carl R. Erickson, John Anson Ford, Philip K. Gilman, M. D.; John W. Green, M. D.; Oliver D. Hamlin, M. D.; Junius B. Harris, M. D.; Carl R. Howson, M. D.; William H. Kiger, M. D.; Dr. Tully C. Knoles, Daniel Koshland, George H. Kress, M. D.; S. J. McClendon, M. D.; Howard Morrow, M. D.; Louis A. Packard, M. D.; Alfred L. Phillips, M. D.; Dewey R. Powell, M. D.; George G. Reinle, M. D.; William W. Roblee, M. D.; Henry S. Rogers, M. D.; John C. Ruddock, M. D.; Frederick N. Scatena, M. D.; Karl L. Schaupp, M. D.; Ernest Sloman, D. D. S.; Harry H. Wilson, M. D.

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✓ ✓ ✓

## ASSOCIATED HOSPITAL SERVICE OF SOUTHERN CALIFORNIA

1151 South Broadway, Los Angeles

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✓ ✓ ✓

## INSURANCE ASSOCIATION OF APPROVED HOSPITALS

369 Pine Street, San Francisco  
675 East Santa Clara, San Jose  
Easton Building, Oakland

Officers and Directors—W. E. Mitchell, M. D., President; Karl L. Schaupp, M. D., First Vice-President; George U. Wood, Second Vice-President; Ellard L. Slack, Treasurer; Theodore C. Lawson, M. D., Secretary; Harold Huovinen, Florence Klaeser, H. Gordon MacLean, M. D.; Arthur G. Saxe.

✓ ✓ ✓

## INTERCOAST HOSPITALIZATION INSURANCE ASSOCIATION

1127 J Street, Sacramento

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## MEDICAL SERVICES

Medical, surgical and specialist services for diagnosis and treatment, regardless of the amount needed, up to one year for each disease or injury, as long as you are within the State of California.

These include:

Treatment at your doctor's office

Treatment at home if you are unable to go to your doctor's office

Treatment at hospital if you have to be hospitalized

Laboratory examinations, including

Urinalysis

Blood-count

Blood chemistry, and

Other required laboratory services

X-ray diagnosis

X-ray and radium treatment

Services of physician-anesthetist

California Physicians' Service is not an insurance company. It is a service organization. The amount of doctors' services is limited only by the requirements of your case for modern diagnosis and care.

*Choice of Doctor.*—Unrestricted choice among the great majority of the doctors practicing throughout California. (Every county in California where doctors are practicing is represented in the five thousand professional members of California Physicians' Service.)

✓ ✓ ✓

## HOSPITAL SERVICES

Hospital care up to twenty-one days for each particular illness or injury during a contract year. Thus, it may include several different stays per year.

This includes:

Care in room of three or more beds (private room at small additional cost)

Meals and services of dietitian

General nursing care

Use of operating rooms, including surgical and anesthetic supplies

Use of cystoscopic rooms and supplies

Splints, casts, dressings, and drugs ordinarily furnished when hospitalized

Choice of hospitals is unrestricted among hospitals listed by the three nonprofit associations. These include more than 80 per cent of the accredited hospitals throughout California.

Hospital service described above will be furnished anywhere in California when necessary while you are under the care of any doctor who is a professional member of California Physicians' Service.

When you are away from California and overtaken by sickness or injury, you may receive hospital care in the nearest accredited hospital anywhere in the world.

✓ ✓ ✓

## COST OF MEDICAL AND HOSPITAL SERVICES

\$1.00 registration fee.

\$2.50 per month per person for full coverage.

\$2.00 per month per person if you agree to pay for the first two doctor's visits in any one sickness or injury.

Note: Either medical services or hospital care may be obtained separately if both services are not desired.

✓ ✓ ✓

## WHO MAY JOIN?

Employee groups or other groups (farm, business, professional, labor, not organized specifically for purpose of securing medical care) of five individuals or more not over age sixty-five. Members in such groups whose net incomes



are \$3,000 or less will be furnished all the medical service their cases require without any cost whatever except monthly charges shown above.

#### SPECIAL NOTE

California Physicians' Service is not yet prepared to offer beneficiary membership agreements for doctors' services to families of members or to individuals not in groups. These coverages will be offered later.

Members of families of group members may secure hospital coverage *now* from the hospital associations shown below.

#### INSURANCE ASSOCIATION OF APPROVED HOSPITALS INTERCOAST HOSPITALIZATION INSURANCE ASSOCIATION

<i>Rates for Dependents of Group Members</i>	<i>Per Month</i>
Spouse (wife or husband).....	80c
Dependent child (30 days to 19 years).....	40c
Dependent child (19 years or over).....	90c

Where the 40-cent rate applies, all dependent children in that age group must apply or no minor child will be accepted.

Dependents will receive hospital services described, plus payment for x-ray examinations and laboratory services, *i. e.*, urinalysis, complete blood count, coagulation time, and smears, when a regular bed patient.

No additional registration fee for dependents.

#### BROAD COVERAGE

The conditions excluded are listed in bold-faced type in membership agreements: (See "Note" below.) These are:

- Mental disorders, drug addiction, and alcoholism.
- Injuries received as result of lawless acts by the member, or intentionally self-inflicted.
- Injuries covered by workmen's compensation laws.
- Conditions already existing at time of becoming a member.
- Services will be furnished for:
  - Diseases peculiar to sex.
  - Cancer, including deep x-ray and radium therapy.
  - Accidents not covered by workmen's compensation, etc.

#### NOTE

**Hernia, Tonsil, Adenoid, Nasal Septum Operations.**—Hospital and medical care both provided after you have been a member for twelve months.

**Obstetrics.**—Hospital care excluded. Medical service furnished after you have been a member twenty-four months.

**Tuberculosis.**—Hospital care excluded after diagnosis is established. Medical care furnished for one year.

**Service Outside of California.**—Hospitalization is furnished anywhere in the world. Medical service limited to California.

Further information concerning the services described may be secured at the offices listed below:

California Physicians' Service, 220 Montgomery Street, San Francisco; 448 South Hill Street, Los Angeles.

Associated Hospital Service of Southern California, 1151 South Broadway, Los Angeles.

Insurance Association of Approved Hospitals, 369 Pine Street, San Francisco; 675 East Santa Clara, San Jose; Easton Building, Oakland.

Intercoast Hospitalization Insurance Association, 1127 J Street, Sacramento.

## PREMARITAL LAW\*

### Premarital Examinations for Syphilis Suggestions for Physicians

A law requiring examinations and blood tests for syphilis before marriage goes into effect in California on September 19, 1939. It is known as Chapter 383, Acts of 1939; Article IIA, Chapter I, Title I, Part III, Division First, of the Civil Code.

#### Provisions of the Law

The law provides that every man and woman contemplating marriage in the State must present to the county clerk a certificate signed by a duly licensed physician stating that, at the time of examination, the applicant did not have syphilis in a form which might be communicated to the marital partner. The certificate will also carry the signature of a laboratory representative testifying that there has been made a standard serological test for syphilis as defined by the State Board of Health.

The serological test and such examination as is necessary for the discovery of syphilis must be made within thirty days before the day the license is issued. The usual confidential relationship between physician and patient shall be maintained. All laboratory reports are confidential. Violation of the confidential provisions of the law regarding certificate forms, laboratory reports and the information they contain, constitutes a misdemeanor.

When extenuating circumstances exist, the law provides that a superior court judge may order the county clerk to issue a license without the presentation of a physician's certificate.

#### Administration of the Law

The State Department of Public Health will distribute the certificate form to laboratories. They will not be issued direct to physicians. The laboratory will forward the certificate form to the physician at the time it sends him the report of a premarital serological test.

The only new procedures for the physician are:

1. To designate that this is a premarital test when the specimen of blood is sent to the laboratory.
2. To report to the laboratory the full name and complete address of the person from whom the blood was taken.
3. To fill out the second half of the certificate form and give it to the person who was examined. The certificate form will be sent the physician with the laboratory report.

Specimens may be sent by the physician to the laboratory which regularly serves him, provided it is licensed or approved to do such tests. The laboratory makes its report to the physician on the original copy of a special form provided by the State Department of Public Health. The duplicate is sent to the state health department. The triplicate is retained on file by the laboratory.

#### Criteria for Certification

*What type of examination is necessary?*

The examination should include an adequate history, an adequate physical examination and a serological test.

*Who may be certified for marriage without question?*

Patients who have no local lesions, no history indicative of syphilitic infection and a negative serological test. In this classification will fall 97 to 98 per cent of all persons requesting premarital examinations.

*What should be done when the serological test is doubtful?*

Repeat the test. Study the case until a definite decision can be made. Do not alarm the patient, but advise that the question is of such importance that guesswork is not permissible. In doubtful tests made by a local laboratory, the state laboratory is required to accept specimens for checking purposes. If there are no early lesions, if there is no

\* From the California State Department of Public Health.

history suggestive of syphilitic infection, and if subsequent tests are negative or doubtful the marriage certificate should be signed.

*What should be done when the serological test is positive?*

Repeat the test. One positive test should not be considered sufficient to establish a diagnosis in the absence of clinical evidence of syphilis. (See *Diagnosis of Syphilis by the General Practitioner*, Supplement No. 5, to *Venereal Disease Information*. Copies obtainable from the California State Department of Public Health.)

*Which factors should be considered in certifying a syphilitic person for marriage?*

The danger of the patient infecting the marital partner is the only factor you are required by law to consider.

*When should a syphilitic patient be allowed to marry?*

Two matters should be considered in deciding the probability of a patient transmitting syphilis to the marital partner. They are duration of infection and thoroughness of treatment. The Wassermann reaction is not an index of infectiousness.

Infectiousness decreases with time. A person who has had syphilis for five years, treated or not, and regardless of whether the serological test is positive or negative, is considered, for practical purposes, noninfectious to the marital partner by most authorities and may be permitted to marry. However, there are rare cases in which infections are transmitted after five years. Persons with syphilis of long standing who have been inadequately treated should be advised that there is a possibility they may transmit the disease and urged to take a minimum of six months' continuous treatment before marriage. For such patients, treatment should be continued after marriage until the physician considers that an adequate course has been given.

Any patient with infection of less than five years' duration should be required to fulfill the following criteria: twelve to eighteen months of continuous treatment with alternating courses of an approved arsenical and heavy metal during the last year of which the patient has been seronegative. This course of treatment should be followed by a minimum of one year of probation in which the patient remains free of clinical and serological evidence of syphilis.

Any patient whose infection is of unknown duration should fulfill the same requirements as a case under five years' duration except that the Wassermann reversal is less essential.

Physicians should recognize that even the fulfillment of these requirements is not absolute proof against transmission of infection. They constitute a reasonable safeguard. A rare case may transmit infection and patients should be so advised. If they agree to take this remaining remote risk, the certificate should be issued.

If the early infection and treatment are complicated by such features as asymptomatic neurosyphilis, arsphenamin resistance, or Wassermann-fastness, marriage should be deferred until the patient has completed treatment and five years is known to have elapsed from date of infection.

The criteria recommended for issuing a certificate to a syphilitic, therefore, are as follows:

1. *A person who has had syphilis for more than five years and has not received adequate treatment may be permitted to marry, but in such cases a minimum of six months' continuous treatment before marriage is advised.*

2. *A person who has had syphilis less than five years should be given a minimum of twelve to eighteen months of continuous treatment, during the last year of which the patient is seronegative, to be followed by a year of probation during which the patient remains free of clinical and serological evidence of syphilis.*

3. *A person who has had syphilis of unknown duration should fulfill the same requirements as those outlined in*

*paragraph 2 except that Wassermann reversal is less essential.*

### Other Factors the Physician Should Consider

The danger of transmitting syphilis to the marital partner is the only matter the physician is required by law to consider in certifying a person for marriage. Good medical practice, however, requires that two other factors should also be considered: (1) the danger of transmission of syphilis to the unborn child; (2) the danger that syphilis may incapacitate the patient and shorten life, thereby adding to the economic hazards of marriage.

*What is the danger of transmission of infection to the unborn child?*

There is no danger that the fetus will be infected by the father if the mother does not become infected. If the mother is infected and untreated, there are approximately seven chances in eight for infection of the fetus. If the mother is adequately treated during pregnancy, beginning before the fifth month, there are at least ten chances in eleven that the child will be nonsyphilitic. Nearly absolute safety for the child may be obtained: (1) if the mother is adequately treated before pregnancy; (2) if, regardless of her own status at the time of pregnancy, she is treated continuously throughout the duration of each pregnancy.

*How much weight should be given to the danger of incapacity or death from syphilis?*

"The danger of incapacity or death from syphilis is a real one. . . . It is manifestly unfair for the syphilitic patient to expect his fiancée to accept this risk blindfold. If the patient's life is shortened or if, after marriage and the birth of several children, he becomes a bedridden invalid from cardiovascular or neurosyphilis, an economic tragedy may be precipitated. Marriage is a partnership, the hazards as well as the pleasures of which should be faced by both partners equally. For this reason, if for no other, no person who has acquired syphilis should contemplate marriage without a frank disclosure to his fiancée of the fact that he has had syphilis; and this announcement should be supplemented by a conference between his fiancée and physician, in which the possibilities of the future are frankly set forth. Many factors require consideration, *i. e.*, the earning capacity of the husband, his protection of life insurance, the ability of the wife to earn her own living if necessary, the possibility of financial security and insecurity. If the danger of infection is eliminated, and if the fiancée chooses to take the economic risk after full explanation, the physician need not object, even though his patient has tabes, paresis, or aneurysm."\*

As far as the California law is concerned, the strictly legal obligation of the physician is clear. He need only concern himself with the question of whether the applicant for a license has syphilis which is, or may become, communicable to the marital partner. Consideration of the health and economic outlook for the patient are not legal reasons for refusing to sign a certificate.

### PRENATAL LAW†

#### Prenatal Tests for Syphilis Suggestions to Physicians

Prenatal serological tests for syphilis are required on and after September 19, 1939, by Chapter 127, Acts of 1939. The law requires that every licensed physician and surgeon or any other person engaged in prenatal care of a pregnant woman, or attending such a woman at the time of delivery, shall take or shall have taken a blood specimen at the time of the first visit or within ten days thereafter.

\* From Moore's *Modern Treatment of Syphilis*. Courtesy of Charles C. Thomas, Publisher, Springfield, Illinois.

† From the California State Department of Public Health.



The blood specimen thus obtained shall be submitted to an approved laboratory for a standard serological test for syphilis. The law provides:

"Any licensed physician and surgeon, or other person engaged in attendance upon a pregnant woman or a recently delivered woman, or any representative of a laboratory who violates the provisions of this Act shall be guilty of a misdemeanor; provided, however, every licensed physician and surgeon or other person engaged in attendance upon a pregnant or recently delivered woman, who requests such specimen in accordance with the provisions of Section 1, and whose request is refused, shall not be guilty of a misdemeanor."

#### Change in Birth Certificate

A question was added to the birth certificate by a law known as Chapter 385, Acts of 1939; Section 10200 of the Health and Safety Code. The new question follows:

"(29) Prenatal examination for syphilis, including period of gestation in months or weeks at which examination was made, and if examination was not made, including reason for not making such examination; provided, however, that the result of said examination be not included on said certificate nor made public in any manner."

#### Administration of the Law

The only departures from the usual routine of the physician are:

1. *In submitting the specimen to the laboratory, he must designate that this is a prenatal test.*

2. *He must report the full name and complete address of the patient to the laboratory.*

3. *He must record on the birth certificate the fact that a serological test was made.*

The laboratory makes its report to the physician on the original copy of a special form provided by the California State Department of Public Health. The duplicate is sent to the state health department. The triplicate is retained on file by the laboratory.

Since birth certificate forms are now in the process of being changed, upon recommendation of the United States Bureau of the Census, it will be some months before the new forms with this question added can be supplied.

#### Syphilis in Pregnancy

*What shall be done if the test is negative but there is a history of syphilis?*

If the patient has ever had a diagnosis of syphilis, with or without previous treatment, she should be treated throughout each pregnancy although the serology is negative. Rare exceptions to this rule are recognized.

*What shall be done when the report on the test is doubtful?*

Repeat the test. Study the case until a definite decision can be made. Do not alarm the patient, but advise her that the question is of such importance that guesswork is not permissible. In doubtful tests made by a local laboratory, the state laboratory is required to accept specimens for checking purposes.

*What is the procedure if the test is positive?*

If the test is positive and confirmed by a second examination, or if there is a history of previous infection, start treatment at once. The aim of antisymphilitic therapy in pregnancy is to prevent or cure syphilis in the child. The disease in the mother should be disregarded temporarily. There is time enough to treat her later, but there are only a few months for treatment of the infant in utero. Special treatment of the mother for neurosyphilis and other complications can wait until the end of the pregnancy.

*How much treatment should be given?*

Treatment should be planned according to the period of time remaining in pregnancy. Always end treatment of

pregnancy with neoarsphenamin or mapharsen. For young adult women otherwise in good physical condition, treatment may be begun with neoarsphenamin or mapharsen. In patients with long-standing syphilitic infection, it is best to give two to four preliminary injections of bismuth salicylate 0.2 gram each.

The following is an acceptable treatment plan for a young adult mother two months pregnant:

<i>Week</i>	<i>Drug</i>
First	0.45 gram neoarsphenamin or 0.04 gram mapharsen
2nd to 6th, inclusive	0.6 gram neoarsphenamin or 0.06 gram mapharsen
7th to 12th, inclusive	0.2 gram bismuth salicylate
13th to 18th, inclusive	0.6 gram neoarsphenamin or 0.06 gram mapharsen
19th to 22nd, inclusive	0.2 gram bismuth salicylate
23rd to 28th, inclusive	0.6 gram neoarsphenamin or 0.06 gram mapharsen

This plan of treatment must be modified to meet conditions of individual pregnancy.

If treatment is started as late as the seventh month of pregnancy, neoarsphenamin and bismuth should be given each week to the end of pregnancy. If treatment is started as late as the ninth month, bismuth plus an arsenical should be given at intervals of four or five days.

Tryparsamid, because of its low spirochaeticidal activity, cannot be substituted for the trivalent arsenicals.

#### Congenital Syphilis

*How shall a diagnosis be established in the infant?*

There are two chief factors to be considered: the serological test, and the clinical manifestations.

The serological test in the infant may be positive at birth, due either to syphilitic infection or a transfer of reagin from the mother. A positive cord Wassermann, therefore, is not a reliable criterion of infection. In the absence of clinical evidence of infection, it is necessary to follow the serology of the infant for at least three months before a diagnosis can safely be made.

The recommended procedure is to test at one month and then at intervals of two weeks. If the test is still positive after three months, begin treatment even in the absence of clinical manifestations. If the test is negative, repeat the test from two to four times during the first two years.

Since the infant may develop clinical signs of syphilis during the observation period, weekly examination is necessary. If clinical evidence of syphilis appears, begin treatment immediately. This treatment consists of intramuscular injections with bismarsen or another recognized antisymphilitic drug.

*What treatment should be given an infant?*

The following schedule of treatment for congenital syphilis has been found highly effective. The same schedule may be used in the treatment of acquired syphilis of childhood.

#### UNDER ONE YEAR OF AGE

1 injection 0.05 gram bismarsen

39 injections 0.1 gram bismarsen

Injections given intramuscularly in the buttocks one time per week or two times per week.

One month vacation.

Take Wassermann.

Give one course (forty injections) after first negative Wassermann.

If Wassermann-fast, six such courses is maximum given.

#### OVER ONE YEAR OF AGE

1 injection 0.1 gram bismarsen

39 injections 0.2 gram bismarsen

Wassermann tests and courses as above.

If patient is sensitive to bismarsen, give forty injections of 0.1 gram of potassium bismuth tartrate.  
About every sixth injection try bismarsen, 0.05 gram.

#### OLDER CHILDREN AND ADOLESCENTS

Adult treatment preferable or  
1 injection 0.1 gram bismarsen  
4 injections 0.2 gram bismarsen  
35 injections 0.3 gram bismarsen  
Wassermann tests and courses as above.

### PROPOSED CHIROPRACTIC INITIATIVE LAW \*

*Explanatory Note.*—This proposed Chiropractic Initiative law is an initiative which aims to amend the existing Chiropractic Practice Act, enacted in 1922.

The complete text of the initiative to be voted upon this fall (on November 7, 1939) is appended, special attention being called to the portions that are emphasized with black-face type.

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(COPY)

#### Initiative Measure to Be Submitted Directly to the Electors

*The Attorney-General has prepared a title and summary of the chief purposes and points of said proposed measure, as follows:*

*Chiropractors. Initiative. Amends title and certain sections of Chiropractic Act; provides secretary of Chiropractic Board shall devote full time to duties and increases his salary; increases powers of board; increases educational requirements of applicant for license; permits licensees to diagnose and treat diseases, injuries, deformities or other physical or mental conditions of human beings, without using drugs or severing any tissues of human body; specifies grounds of and proceedings for suspension or revocation of license; specifies annual renewal license fee and method of reinstating forfeited license; declares licensees shall report communicable diseases and sign birth and death certificates.*

State of California,  
County (or City and County) of,--ss.

To the Honorable, the Secretary of State of the State of California:

We, the undersigned, registered, qualified electors of the State of California, residents of the county (or city and county) of —, hereby present to the Secretary of State this petition and hereby propose a law and act entitled as follows: "An act to amend the title and Sections 3, 4, 5, 7, 10, 12 and 13 of that certain act entitled 'An act prescribing the terms upon which licenses may be issued to practitioners of chiropractic, creating the state board of chiropractic examiners and declaring its powers and duties, prescribing penalties for violation hereof, and repealing all acts and parts of acts inconsistent herewith,' " approved by the electors at the general election on November 7, 1922; providing for the organization of the state board of chiropractic examiners, and providing for its officers, duties, powers and compensation; regulating the practice and licensing of chiropractors; defining the scope of practice of licensees; establishing educational requirements and other qualifications for licensees; fixing license and renewal fees; providing for the issuance, suspension, revocation and reinstatement of licenses; providing for investigation and approval of chiropractic schools and colleges; requiring reports of communicable diseases; and repealing all conflicting provisions of other acts, to read as hereinafter set forth in full, and petition that the same be submitted to the electors of the State of California for their adoption or rejection at the next succeeding general election or as provided by law.

The proposed law and act is as follows:

An act to amend the title and sections 3, 4, 5, 7, 10, 12 and 13 of that certain act entitled "An act prescribing the terms upon which licenses may be issued to practitioners of chiropractic, creating the state board of chiropractic examiners and declaring its powers and duties, prescribing penalties for violation hereof, and repealing all acts and parts of acts inconsistent herewith," approved by the electors at the general election on November 7, 1922; providing for the organization of the state board of chiropractic examiners and providing for its officers, duties, powers and compensation; regulating the practice and licensing of chiropractors; refining the scope of practice of licensees;

fixing license and renewal fees; providing for the issuance, suspension, revocation and reinstatement of licenses; providing for investigation and approval of chiropractic schools and colleges; requiring reports of communicable diseases; and repealing all conflicting provisions of other acts.

The people of the State of California do enact as follows:

Section 1. The title of that certain act entitled "An act prescribing the terms upon which licenses may be issued to practitioners of chiropractic, creating the state board of chiropractic examiners and declaring its powers and duties, prescribing penalties for violation hereof, and repealing all acts and parts of acts inconsistent herewith," approved by the electors at the general election on November 7, 1922, is hereby amended to read as follows:

"An act creating the state board of chiropractic examiners, and providing for its organization, members, duties and powers; regulating the practice and licensing of chiropractors and defining the scope of practice thereof; providing for the investigation and approval of chiropractic schools and colleges; establishing educational requirements and other qualifications for licensees; fixing license fees; providing for the issuance, suspension, revocation and reinstatement of licenses; prescribing penalties for violation hereof, and repealing all conflicting provisions of other acts."

Section 2. Section 3 of said act is hereby amended to read as follows:

Sec. 3. The board shall convene within thirty days after the appointment of its members, and shall organize by the election of a president, vice-president and secretary, all to be chosen from the members of the board. Thereafter elections of officers shall occur annually at the January meeting of the board. A majority of the board shall constitute a quorum.

It shall require the affirmative vote of three members of said board to carry any motion or resolution, to adopt any rule, or to authorize the issuance of any license provided for in this act.

The secretary shall receive a salary to be fixed by the board in an amount not less than three thousand six hundred dollars per annum and not more than four thousand two hundred dollars per annum, together with his actual and necessary traveling expenses incurred in connection with the performance of the duties of his office, and shall give bond to the state in such sum with such sureties as the board may deem proper. He shall devote his full time to the performance of his duties as such secretary. He shall keep a record of the proceedings of the board, which shall at all times during business hours be open to the public for inspection. He shall keep a true and accurate account of all funds received and of all expenditures incurred or authorized by the board, and on the first day of December of each year he shall file with the governor a report of all receipts and disbursements and of the proceedings of the board for the preceding fiscal year.

Section 3. Section 4 of said act is hereby amended to read as follows:

Sec. 4. The board shall have power:

(a) To adopt a seal, which shall be affixed to all licenses issued by the board.

(b) To adopt from time to time such rules and regulations as the board may deem proper and necessary for the enforcement of this act, copies of such rules and regulations to be filed with the secretary of the board for public inspection.

(c) To examine applicants and to issue and revoke licenses to practice chiropractic, as herein provided.

(d) To summon witnesses and to take testimony as to matters pertaining to its duties; and each member shall have power to administer oaths and take affidavits in connection with board matters.

(e) To approve every chiropractic school or college which complies with the provisions of this act and the rules and regulations of the board. Nothing in this act shall prohibit the board from withdrawing its approval of any chiropractic school or college after such approval has been granted.

(f) To promulgate and adopt rules and regulations for the conduct of chiropractic schools and colleges. Each chiropractic school or college in order to obtain the approval of the board shall make application therefor to the board in writing, and shall furnish such information regarding such school or college as may be required by the board. Said schools or colleges shall at all reasonable times permit any member of the board or any representative thereof to enter upon the premises of such school or college and to inspect the facilities and records thereof.

(g) To publish an annual directory, a copy of which shall be delivered to each licensee without cost. Copies of said directory may be sold to other persons at one dollar per copy.

\* For editorial comment, see page 147.

For digest of an opinion on the existing chiropractic law, see on page 213.



(h) To employ an assistant secretary, inspectors, attorney, and such other clerical assistance as the board may deem necessary.

(i) To do any and all things necessary or incidental to the exercise of the powers and duties herein granted or imposed.

Section 4. Section 5 of said act is hereby amended to read as follows:

Sec. 5. It shall be unlawful for any person to practice chiropractic in this state without a license so to do. An applicant for a license hereunder must be not less than twenty-one years of age, of good moral character, and must submit satisfactory proof of graduation from a high school requiring not less than fifteen units for graduation. He must apply to said board at least fifteen days prior to any meeting thereof, upon such form and in such manner as the board may provide, and the application must be accompanied by a fee of twenty-five dollars.

Except in cases herein otherwise provided for, an applicant for a license to practice chiropractic must be a graduate of a chiropractic school or college approved by said board, which teaches a course of instruction of not less than four thousand hours in the subjects hereinafter enumerated in this section, extended over a period of four school terms of not less than nine months each.

An applicant for a license hereunder must submit satisfactory proof of actual attendance during not less than ninety per cent of the hours herein prescribed.

For the purposes of this act, an academic "hour" shall be construed as a period of not less than fifty minutes. The hours of instruction and the subjects required of an applicant for a license to practice chiropractic, and the minimum of hours and courses to be taught by an approved chiropractic school or college are as follows:

Subject	Hours
Dissection .....	150
Histology .....	100
Anatomy .....	600
Bacteriology .....	100
Chemistry (including fifty hours laboratory).....	150
Hygiene and sanitation .....	100
Toxicology .....	50
Physiology .....	300
Pathology .....	300
Physical diagnosis and analysis.....	450
Chiropractic theory and practice.....	500
Obstetrics .....	200
Gynecology .....	100
Spineography .....	100
Biology .....	100
Physics .....	100
Dietetics, including endocrinology, biochemistry and food chemistry.....	300
Physical therapy and practice.....	300
Total.....	4000

Section 5. Section 7 of said act is hereby amended to read as follows:

Sec. 7. One form of certificate shall be issued by the board of chiropractic examiners; said certificate shall be designated "License to practice chiropractic," which license shall authorize the holder thereof to diagnose and treat diseases, injuries, deformities or other physical or mental conditions of human beings, without the use of drugs and without in any manner severing any of the tissues of the human body.

Section 6. Section 10 of said act is hereby amended to read as follows:

Sec. 10. (a) Said board shall refuse to grant, or may suspend or revoke a license to practice chiropractic in this state upon any of the following grounds:

First—Procuring or aiding or attempting to procure a criminal abortion.

Second—Violating or attempting to violate, directly or indirectly, or failure to comply with, any provision of this act.

Third—Wilfully betraying a professional secret.

Fourth—Revocation or suspension by a sister state of a license by virtue of which one is licensed to practice in this state.

Fifth—Employing, directly or indirectly, any unlicensed practitioner in the practice of chiropractic, but this provision shall not be construed to prohibit the employment of nurses or other bona fide assistants by licensees under this act.

Sixth—Advertising which is intended or has a tendency to deceive the public or to be harmful to public morals or safety, or the advertising of definite or fixed prices for professional services.

Seventh—Advertising of any treatment, medicine or method whereby the monthly periods of women can be regulated or the menses reestablished.

Eighth—Conviction of a felony or of any offense involving moral turpitude in which cases the record of such conviction shall be conclusive evidence.

Ninth—The purchase or sale, or offer to purchase or sell, the alteration of, or fraudulent use of, any chiropractic or other diploma, degree or license.

Tenth—Fraud in an application or examination for a license.

Eleventh—Practicing chiropractic under a false name or the impersonation of another chiropractor.

Twelfth—Habitual intemperance or excessive use of ardent spirits or narcotics.

Thirteenth—Advertising, directly or indirectly, in any manner, that a licensee hereunder, or any person or company connected with him, will treat or cure, or attempt to treat or cure, any venereal or sexual disease, weakness or disorder.

Fourteenth—Failure or refusal to record a license as required by this act.

Fifteenth—The employment of "cappers" or "steerers" or other persons in procuring chiropractic practice.

Sixteenth—Misrepresentation in connection with alleged rights or privileges to practice as a licensee under this or any other professional act.

(b) Before any license is suspended or revoked by said board, the licensee shall be furnished with a specification of the ground or grounds upon which suspension or revocation of his license is contemplated and after reasonable notice thereof to the licensee the board shall conduct a hearing in the matter at which time the licensee may be represented by counsel.

(c) If an application for a license is refused by said board, or if after notice and hearing a license issued is suspended or revoked, the aggrieved person may commence an action in the superior court against the board to compel the granting of the application or to cancel the act of the board in suspending or revoking the license, as the case may be, or for any other appropriate relief, such action to be in the nature of a proceeding in review. Every order of the board shall be final and conclusive as to questions of fact. A proceeding to review an order of the board must be filed within thirty days after the issuance of the order and tried in the county in which the board hearing was held or in any county wherein the board maintains an office.

(d) The secretary shall enter in his records the fact of such revocation or suspension, and shall certify that fact to the county clerk of the county in which the license has been recorded pursuant to Section 11 hereof. Said clerk must thereupon endorse that fact, opposite the name of the licensee in his said record. The record of such revocation or suspension so made by said clerk shall be prima facie evidence of the fact thereof, and of the regularity of all proceedings of said board in the matter of said revocation or suspension.

(e) After two years from the revocation of a license said board may make an order of restoration and issue a new license upon application therefor accompanied by a fee of twenty-five dollars.

Section 7. Section 12 of said act is hereby amended to read as follows:

Sec. 12. Each person licensed under this act shall, on or before the first day of January of each year, after a license is issued to him as herein provided, pay to said board of chiropractic examiners a renewal fee of not less than five dollars nor more than ten dollars, to be fixed annually by the board. The secretary of the board shall, on or before November first of each year, mail to all licensed chiropractors in this state, a notice that the renewal fee will be due on or before the first day of January next following. The failure, neglect or refusal of any person holding a license or certificate to practice under this act to pay said annual fee during the time his or her license remains in force shall, after a period of sixty days from the first day of January of each year, ipso facto, work a forfeiture of his or her license or certificate, and it shall not be restored except upon the written application therefor within a period of two years from delinquent date and the payment to said board of a delinquent penalty of ten dollars, together with all renewal fees delinquent, provided that such licensee who reinstates said license or certificate within the period of two years shall not be required to submit to an examination for the reinstatement of such certificate.

Section 8. Section 13 of said act is hereby amended to read as follows:

Sec. 13. Chiropractic licensees shall observe all state and municipal regulations relating to the reporting of communicable diseases, and shall sign birth and death certificates and make the required reports and file them with the proper authorities as required by law and such reports shall be accepted by the officers of the departments to which they are made.

## CHIROPRACTIC: SCOPE OF CHIROPRACTIC IN CALIFORNIA \*

### "Chiropractic as Taught in Chiropractic Schools" Construed

The defendant was a chiropractor licensed under the provisions of the Chiropractic Initiative Act adopted in California in 1922. He was convicted of a violation of the Medical Practice Act, now forming a part of the Business and Professions Code of California, and appealed to the appellate department, superior court, Los Angeles County, California.

It was not necessary, the Court said, for the complaint to negative the possession of a chiropractic license by the defendant. The operative effect of the 1922 chiropractic initiative was the same as that of an exception or limiting proviso placed in the same act with a prohibition which is not a part of the definition of the offense. It is the rule in such matters that it is not necessary in a criminal charge to negative such an exception or proviso.

Prior to the 1922 chiropractic initiative, chiropractors in California could by virtue of a provision in the Medical Practice Act obtain from the Board of Medical Examiners licenses to practice as drugless practitioners, without the use of drugs or medical preparations and without severing or penetrating any of the tissues of human beings, except the severing of the umbilical cord. The 1922 chiropractic initiative created a Board of Chiropractic Examiners and provided that a license issued by the Board authorized the holder—

to practice chiropractic in the State of California as taught in chiropractic schools or colleges; and, also, to use all necessary mechanical, and hygienic and sanitary measures incident to the care of the body, but shall not authorize the practice of medicine, surgery, osteopathy, dentistry, or optometry, nor the use of any drug or medicine now or hereafter included in *materia medica*.

The proponents of the 1922 initiative, the Court pointed out, then argued that their complaint was not against the limited form of license under which they practiced, but against the unfair administration of the Medical Practice Act as it applied to chiropractors. They assured the voters that the proposed initiative prohibited the use of "drugs, surgery, or the practice of obstetrics by chiropractors." This argument, the Court said, while not conclusive, may be considered as an aid in interpreting the initiative. The decision of the Court in this case does not indicate, except by inference, specifically the type of practice in which the defendant engaged. It does discuss exhaustively the scope of chiropractic in California.

The Court disagreed with the defendant's contention that he was authorized to practice any method of healing that is taught in chiropractic schools and colleges. The practice authorized by the initiative, the Court observed, must be "chiropractic," and it must also be "as taught in chiropractic colleges." Neither of these expressions can rule the meaning of the initiative to the exclusion of the other. The Court quoted from various sources to show that the term "chiropractic," at the time the initiative was adopted in 1922, meant a system of healing that treated disease by manipulation by hand of the spinal column. This general consensus of definitions, the Court continued, showed what was meant by the term "chiropractic" when used in the initiative act, for the words of an act must be taken in the sense in which they were understood at the time when the Act was enacted. Nor, the Court observed, has the accepted definition of the word since changed. The effect of the words "as taught in chiropractic schools or colleges" is not to set at large the signification of "chiropractic," leaving the schools and colleges to fix on it any meaning they choose. The scope of chiropractic being well known, the schools and colleges, so far as the authorization of the chiropractor's license is concerned, must stay

within its boundaries. They cannot exceed or enlarge them. The trial court, in the opinion of the appellate court, correctly instructed the jury as follows:

It is thus seen that the authority granted to a chiropractor to practice the arts taught in chiropractic schools and colleges is limited by the restriction that such practice may not invade the field of medicine or surgery, nor may the chiropractor use any drug or medicine included in *materia medica*, even though certain phases of the practice of medicine or surgery or the use of such drugs or medicines may have been taught in chiropractic schools or colleges. In other words, the chiropractor is limited to the practice of chiropractic and the use of mechanical hygienic and sanitary measures incident to the care of the body, which do not invade the field of medicine and surgery, irrespective of whether or not additional phases of the healing art, including medicine and surgery or the use of drugs, may have been taught in chiropractic schools or colleges.

The defendant contended that the limiting language found in the Chiropractic Initiative Act that licenses issued thereunder shall not authorize the practice of medicine, surgery, osteopathy, dentistry or optometry, nor the use of any drug or medicine now or hereafter included in *materia medica*, was purely surplusage and should be wholly disregarded. This was certainly not the position taken by the proponents of the 1922 initiative, the Court pointed out, nor did the people have any such intent in adopting the Act, if they paid any attention to the positive assurance given them by the proponents, as the Court supposed they did. The defendant argued that chiropractic is merely a phase of medicine and surgery, and since the license provided by the initiative act expressly permits the practice of chiropractic, the limitation was repugnant to the grant and must be ignored. But, the Court pointed out, all the parts of an act must be considered together and meaning and effect must be given, if possible, to each and every part. The initiative must, then, mean something by its provision that a chiropractic license shall not authorize the practice of medicine or surgery. Obviously, it does not mean to prohibit what has just been expressly authorized; that is, the practice of chiropractic. In view of the fact that the proponents of the initiative declared in 1922 that "the teachings and practice of chiropractic are admittedly different from those of medicine," that there was no objection to the scope of the license which a chiropractor could obtain under the Medical Practice Act, and that under the proposed initiative, chiropractors could not use drugs or surgery, the Court in the present case concluded that the words "medicine" and "surgery," as used in the initiative act, were intended to continue, as to chiropractors, the limitations imposed on drugless healers by the Medical Practice Act; that is, to deny them the use of drugs and medical preparations and the severing or penetrating of the tissues of human beings.

The defendant objected to an instruction given by the trial court that excluded chiropractors from the use of proprietary medicines. But, the Appellate Court said, that instruction was in accordance with the language of the initiative itself, which makes no exception of medicines that are "proprietary." The Act declares that persons licensed under it shall not practice medicine, a practice which certainly includes the use and prescribing of medicines in whatever form or combination they may be prepared or sold. It also prohibits the use by licensees of "any drug or medicine now or hereafter included in *materia medica*." The term "*materia medica*" is defined in Webster's New International Dictionary, 1926 edition, as follows: "(1) Material or substance used in the composition of remedies: a general term for all substances used as curative agents in medicine. (2) That branch of medical science which treats of the nature and properties of all the substances employed for the cure of diseases; one of the two branches of pharmacology." For the present purpose, the Court said, it makes little difference which of these two meanings is to be given the term as used in the chiropractic initiative. Taking it in either sense, the effect of the pro-

\* Digest of an opinion handed down by the Appellate Court of California.

For editorial comment, see page 147. Copy of the proposed initiative appears on page 211.



hibition cannot be evaded by mixing one of the included drugs or medicine with something else and calling it, whether rightly or wrongly, a proprietary medicine.

The Appellate Court could find no error in the record, and the judgment of conviction was affirmed. *People vs. Fowler* (Calif.), 84 P. (2d) 326.—*Journal of the American Medical Association*.

## UNITED STATES NATIONAL HEALTH PROGRAM: WAGNER BILL, S. 1620

### Digest of the Preliminary Report from the Committee on Education and Labor of the United States Senate\*

In submitting its preliminary report (Senate Report No. 1139, Seventy-Sixth Congress, First Session) the subcommittee of the Committee on Education and Labor points out that it is in agreement with the general purpose and objectives of the Wagner Bill, Senate 1620, establishing a National Health Program; it wishes, however, to give this legislation additional study and to consult further with representatives of lay organizations and of the professions concerned.

The subcommittee states that it intends to report out an amended bill at the next session of Congress.

#### I. NEED FOR A NATIONAL HEALTH PROGRAM

The preliminary report states that this bill is the result of several years of preparatory study and discussion, and that it grew out of the movement which led to the Social Security Act of 1935, followed by the National Health Conference, the National Health Survey, and various other activities.

The evidence presented shows convincingly, the Committee believes, that there are great opportunities to improve health conditions in this country. It is felt that we should be able to make still further improvements on the excellent records in the field of health that prevail today. Special reference is made to the opportunity to save lives threatened by tuberculosis. It is said that the funds available for venereal diseases are sufficient to make only a beginning in this campaign.

The report emphasizes that 11,000 mothers died in childbirth in 1937 and alleges that more than one-half to two-thirds of such maternal deaths are preventable. It is said also that each year nearly a quarter of a million women do not have the advantage of a physician's care at the time of delivery. Vastly more could be done than is being done to conserve the lives and health of children.

The report indicates the belief that only those in the upper income groups receive anything approaching adequate dental care.

There is a discussion of the extra hazards associated with industry, and much is said of the need of new methods of medical service in rural areas.

Emphasis is placed on the statement that there is wide variation among the states in the availability of hospital facilities. With regard to general hospitals, the number of available beds varies among the states from a maximum of 5.2 to a minimum of 1.3 for every thousand of population. The record for the country as a whole indicates an average of 3.1 beds for every thousand persons, and the report asserts that adequate standards for general hospitalization call for an average of 4.5 beds in general hospitals for every thousand persons.

There are also great differences among the states in the availability of beds in mental institutions.

\* Digest compiled from Report No. 1139 (forty-two pages), submitted under date of August 4, 1939, to the Seventy-Sixth Congress, by Senator Murray for the Senate Committee on Education and Labor. Digest is reprinted from *The Journal of the American Medical Association*, August 19, 1939, page 685.

For editorial comment, see in this issue, on page 148.

#### COSTS OF ADEQUATE HEALTH SERVICES

The preliminary report calls attention to the fact that there are various factors which explain why large proportions of the population fail to receive the medical and health service they need. The Committee recognizes the fact that ignorance, reliance on unsuitable methods, great distances from physicians, and so on, play a part, but it says that, from the evidence placed before it, the major reason is lack of financial ability on the part of large portions of the population to meet the costs of needed services. It has accepted the idea that many who could buy medical care on some budget basis find it difficult to purchase service on the customary basis of paying for the care when the need for the care arises.

Figures are cited from the National Health Survey to show that the average number of physician's calls per case is higher among the well-to-do than among the poor. The committee repeats the statement of a witness for the American Medical Association to the effect that among the one-fourth of the states with the highest percentage of population filing income tax returns there was an average of one general hospital bed for 261 persons in the population and that these beds were being used 65.5 per cent of their capacity. In the one-fourth of the states at the other end of the economic scale, there are 549 persons per general hospital bed with an average occupancy rate of only 52 per cent.

Much emphasis is placed on the report supplied by Dr. R. G. Leland, Director of the Bureau of Medical Economics, who testified on behalf of the American Medical Association and who supplied factual data on medical economics.

The Committee said: "We cannot emphasize too strongly or say too often that when we speak of inadequate medical care, of insufficient services received by large numbers of people, or of the economic problems in paying for care, we are not criticizing the physicians or hospitals or others who furnish services. They have long been performing humanitarian services deserving the highest praise. It is not the responsibility of doctors or hospitals or related groups that large sectors of the population have limited economic resources."

The Committee paid tribute also to the work of the voluntary organizations and stated that "every right-thinking citizen will insist that in the health program for the future there shall be adequate provision for the continued vigorous activity of the voluntary organizations."

#### DISABILITY INSURANCE

The Committee believes that the program of social security which this country has established is incomplete without protection of the individual against the risk of losing his earning power because of disability. The Committee feels that, if adequate protection against the risk of disability is to be developed, insurance must be made obligatory, as has already been done in the case of protection against unemployment in old age.

#### THE NEED FOR FEDERAL ACTION

The Committee argues that it does not propose a new departure or a new type of activity for the Federal Government. "It is our opinion," it says, "that the administration and operation of health services should be left to the local communities and to the states, and that the Federal Government should not control or dictate to the local communities or states in the management of these functions. . . . The primary opportunity for the Federal Government is to give financial and technical aid to the states."

It is pointed out that the Federal Government is now providing aid to the states for a variety of purposes having to do with the general welfare and with health. The Committee points out that the public hearings have shown that there is a broad and substantial support now for federal legislation to strengthen, extend and improve the health

services of our people. Scarcely a witness raised objection to the objectives of the bill, although representatives of some organizations presented serious criticisms.

## II. PRINCIPLES UNDERLYING THE BILL

Here the Committee presents an analysis of the bill, together with statements by Abel Wolman, Dr. Felix J. Underwood, Dr. A. T. McCormack, Dr. Thomas Parran, and Miss Katharine Lenroot, in support of the form of S. 1620.

## III. PRINCIPAL PROVISIONS OF THE BILL

There follows an analysis of the bill as it now stands and a table of comparison of present appropriations for health purposes under the Social Security Act and the appropriations proposed to be authorized by S. 1620.

## IV. SOME SPECIAL PROBLEMS RAISED IN THE HEARINGS

It is pointed out that some witnesses objected to the grant-in-aid pattern embodied in the bill. The Committee felt that the bill would appear to follow a fundamentally sound principle when it leaves to the states the decision as to the population groups to be served by their plans. The Committee has under consideration the question of providing funds for federal support of professional education, administrative training and research. The Committee is prepared to make the intention of the bill to provide for health education of the public clear and specific.

There is much discussion of the recommendation that one federal agency should administer medical affairs. It is pointed out that further study is required on the matter of the relationship between the Federal Security Administration and the Children's Bureau of the Department of Labor and between them and other federal agencies. There is also the question of having a single federal advisory council or a national health council instead of several federal advisory agencies.

The Committee considered particularly the question of the protection of minority population groups and asserts that the Committee believes that there should be just and equitable allocation of funds according to the needs for services.

On the question of the eligibility of practitioners from various schools of healing, the Committee states that it is impressed by the fact that the licensing and regulation of practitioners in medicine and allied fields have always been within the jurisdiction of the states and not under the Federal Government, and the Committee feels that the powers should be left in these states as at present and that, therefore, the bill should not include any specifications on these points except a provision to the effect that nothing in the bill should be construed as infringing on the authority of each state to continue to regulate the practice of the healing arts.

On the question of the construction of hospitals, the Committee states that this title is not intended to lead to any unsound activity. Before any new hospital construction is undertaken, the available beds in qualified, existing, nongovernmental and governmental hospitals should be used, provided the type of service meets accepted standards and the charges for the use of such beds are reasonable. The Committee says, "We have no intention whatever of endorsing any proposal that would encourage the building of hospitals where adequate facilities exist or that would encourage the building of public hospitals where private hospital construction would, in the normal course of events, meet community needs." It says: "Furthermore, our Committee intends to prepare amendments to Title 12 to assure that federal aid under this title will require unequivocally clear showing of need through impartial state and local surveys, and clear satisfaction of federal requirements that such needs exist, in addition to reasonable demonstration as to future continuing support of the hospitals." The

report says that "the Committee is agreed that the bill should be amended by addition of positive provisions that qualified hospitals and agencies, both public and private, may be utilized in the state plans."

## V. CONCLUSION

"S. 1620 has received wide support from large and representative organizations. Its objectives are noncontroversial. Our Government is dedicated to promoting the welfare of the people and the protection and improvement of health and well-being. Making available to all of the people the great life-saving services which modern medicine has to offer is an objective which every right-thinking citizen supports.

"The Committee is convinced that federal legislation along the general lines followed by S. 1620, based upon federal-state coöperative programs, is necessary to strengthen the health services of the nation and to make provision for the progressive and effective improvement of health conditions in all parts of the country and among all groups of people. The needs are large, and an adequate program to put knowledge and skill more effectively to work will involve considerable expenditures of funds. The program must, therefore, be worked out with great care. We are confident that such a program can be worked out and that the expenditures will be sound national investments which will bring large returns. The rôle of the Federal Government should be primarily to give technical and financial aid to the states.

"A critical analysis of the present provisions of S. 1620 shows a number of points at which its specific purposes can be more clearly stated and its provisions improved. The Committee has not yet reached any conclusions concerning the precise rate at which federal appropriations should be increased, but the Committee is agreed on the general principle that the proportion of federal assistance should be greater to those states in which there is the greatest need for the services contemplated under the bill. The Committee is prepared to augment the provisions of the bill—if additional provisions are needed—to assure that the amount of federal assistance would in no instance be in excess of clearly demonstrated need.

"Some misunderstandings seem to have arisen and criticisms have been expressed concerning parts of the bill. Some witnesses have assumed that it would bring about revolutionary or dangerous changes in medical care. We think these fears are unwarranted, but we will welcome further suggestions as to specific amendments which may safeguard the objectives of the bill. Medical science has reached a commendable status in this country. The bill should encourage the further evolutionary development of medical science, teaching and practice.

"The Committee has received the assurances of many lay and professional groups that they will be prepared to furnish further information and suggestions. We expect to consult further with representatives of these groups.

"We have not yet had adequate time to make exhaustive study of all of the problems involved in the legislation proposed by S. 1620. The Committee will continue its study of S. 1620 so that a definitive report on the proposed legislation can be submitted soon after the beginning of the next session of the Congress."

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By study man produced the stone tool, the bow and arrow, the numerals, and the alphabet. Likewise tillage, books, and all else by which he lifted himself out of savagery. Among his great works—poems, commerce, and government—each is a creation of the mind. The structures in which man resides, works, and escapes the pelting elements, the conveyances in which he travels, are but mental reflections that have taken tangible form.



## TWENTY-FIVE YEARS AGO†

### EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XII, No. 9, September, 1914

From Some Editorial Notes:

*The Osteopathic Situation.*—The Journal has already printed an official statement of the fact that the many "drugless healers" were energetic in their efforts to secure an initiative on the ballot at the next election, their proposed law being one which practically does away with all control of medical standards in the matter of license to practice, and would also allow osteopathic and other similar schools to grant the degree of doctor of medicine, etc. The "Los Angeles County Osteopathic Association" is at the top of a circular letter dated July 16, 1914, which letter was apparently sent to a number of people with a request that they get signatures to the enclosed petition to the Governor, asking him to do many things. . . .

*Our Delegates at the Atlantic City Meeting.*—A member of our society who was present at all the meetings of the delegates of the American Medical Association has sent in the following statement of his views and observations:

"It has occurred to me that a brief account of the splendid work of the California delegates at the recent meeting of the American Medical Association at Atlantic City would prove acceptable to your readers. As an interested spectator throughout the Thursday afternoon session of the House of Delegates, at which the election of officers and selection of the next place of meeting took place, I had the privilege of seeing our representatives play the game and win out on every count.

"Drs. V. G. Vecki, H. Bert Ellis, and George Hare, the California delegates, sat together, taking no active part in the proceedings until the interests of their own state became an issue. When nominations to fill the vacancy in the Board of Trustees made by the expiration of the term of office of Dr. Philip Mills Jones were called for, he was promptly named to succeed himself, only one other nomination being made. The first ballot resulted in a tie. Then our boys got very busy, and the second ballot landed our Secretary-Editor in his old berth by a safe margin. This happy result should be—and undoubtedly is—most gratifying to our society and to the profession of the state at large.

"The matter of the next place of meeting came up on the report of the Standing Committee on Transportation and Place of Meeting. This report unanimously recommended Chicago for the 1915 meeting, thus placing a heavy handicap on San Francisco. Doctor Vecki immediately moved that the report be amended by substituting San Francisco for Chicago, and proceeded to speak in eloquent terms of the former's claims. A merry war now developed. . . . The effect was instantaneous. The question was at once put to vote, and San Francisco was 'it' by a large majority. . . ."

*The State University Establishes a Graduate School at Los Angeles.*—Announcement has been made by the Regents of the University of California, that, commencing on July 1, 1914, the Los Angeles Medical Department of the University of California would discontinue undergraduate instruction to third and fourth year medical students, and would hereafter confine its work to instruction of graduates of medicine. By taking this step, the Regents

(Continued in Front Advertising Section, Page 24)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

## BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M.D.

Secretary-Treasurer

### Board Proceedings

A special examination was held in Belmont High School, Los Angeles, August 7 to 10, inclusive, 1939. Approximately thirty-seven reciprocity applicants took the oral examination and seventy-seven graduates of medical schools took the written examination.

### News

"According to press reports, there will be an initiative measure on the ballot in November, in addition to the 'Ham and Eggs' proposal. Its object is to permit chiropractors to sign birth and death certificates. We question the value of this proposal. What is to be gained by chiropractors being permitted to confine womanhood in view of known lack of proper learning by the great majority of this profession in the technique of medicine? . . . Every safeguard should surround womanhood in confinement by the best practice. Chiropractic technique is not one of them." (Editorial, *Isleton Journal*, August 4, 1939.)

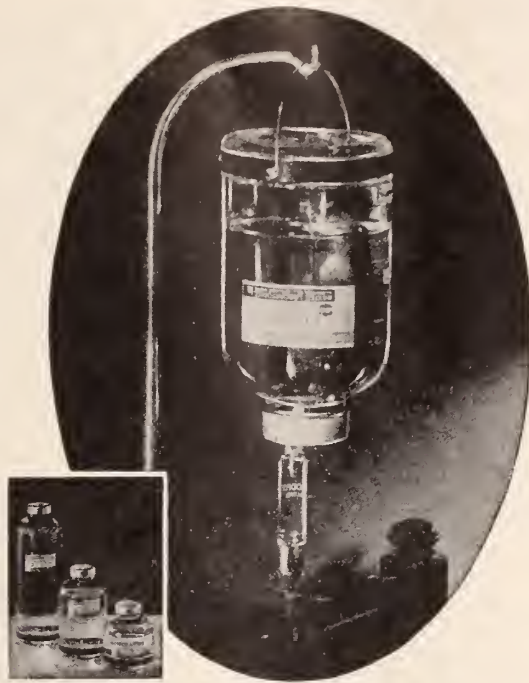
"Dr. David Long, youthful chiropractor who recently won for his profession the right to practice obstetrics, was to be the principal speaker today at the opening session of the national convention of the American Progressive Chiropractic Association. The six-day meeting is being held at the Los Angeles Chiropractic College. . . . Doctor Long's topic will be 'Normal Delivery of a Baby.' He recently won a test case, instituted by the State Medical Board, to determine the right of a chiropractor to practice obstetrics. . . ." (Los Angeles *Evening News*, July 31, 1939.)

"The American Progressive Chiropractic Association yesterday announced that it would take definite steps to secure a chiropractic unit in General Hospital for patients requesting chiropractic treatment. A decision to 'go the limit' was reached by members of the Association, now holding their sixteenth annual national convention at Los Angeles College of Chiropractic, when it was reported County Supervisor Gordon L. McDonough had refused to grant the long-sought petition for a ward in General Hospital, to be maintained by the chiropractors at no expense to taxpayers. Two courses of action are planned to force the issue. One will be through a taxpayers' petition demanding hospital space or filing of a writ of mandamus suit to compel the Board of Supervisors to heed the demands of the chiropractors." (Los Angeles *Daily News*, August 5, 1939.)

"Governor Olson issued a special statement in pocket-vetoing A. B. 449, by Assemblyman Chester F. Gannon of Sacramento County, which would have required United States citizenship to obtain a license to practice medicine in California. 'This bill,' said Olson, 'would eliminate practice by some of the world's greatest medical scientists. It would also work a hardship on other qualifying physicians by compelling a wait of several years necessary to acquire citizenship before being permitted to earn a livelihood in their profession. The bill would deny such privilege to aliens even if they have declared their intention to become American citizens. The bill is not directed toward

(Continued in Front Advertising Section, Page 30)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.



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## BOARD OF MEDICAL EXAMINERS

(Continued from Page 30)

cerns the time of beginning of terms of the board. It dates back to the formation of the Board by state initiative in 1922." (Oakland Tribune, August 1, 1939.)

"Physicians pointed tonight to the death of L. H. Cardwell, fifty-five, a suicide victim who refused medical aid that might have saved his life, as a striking illustration of a need for legislation giving them wider discretionary powers. Cardwell, a grocer and former Chattanooga, Tennessee, medical student, lapsed into a coma during the night and died this morning more than twenty-four hours after he put a .38 caliber bullet into his chest. The slug pierced his stomach and a lung, bringing fatal hemorrhages and peritonitis. Cardwell's physician said surgery performed within a few hours after the shooting might have saved his life. The victim spoke his own death sentence when he said at the hospital: 'Do not operate. I want to die.' In desperation, physicians appealed to Attorney-General Earl Warren for authority to operate against the patient's will. Warren, however, ruled that the law gave them no power to act without Cardwell's specific assent. From Howard Hassard, San Francisco, attorney for the California Medical Association, came the comment: 'I believe the solution would rest in an amendment to the law giving doctors wider discretion in performing operations where obviously surgery is vital to saving a life.'" (Los Angeles Daily News, August 5, 1939.)

"Unable to agree on a verdict after three hours of deliberation, a justice court of five women and seven men who heard testimony in the trial of Dr. Robert Harlan McKinney was discharged at 6:40 o'clock last night. . . .

Doctor McKinney, local chiropractor, was charged with violation of the Medical Practice Act through assertedly treating Mrs. Clara Baber of Santa Rosa with surgery and medicines which he prescribed. The defense was based on the chiropractor's contention that the type of treatment he administered through various types of ray machines was taught in the chiropractic colleges of California. District Attorney Toland McGettigan and Assistant District Attorney Charles McGoldrick prosecuted. . . . Whether or not a retrial will be sought was undecided late today, with the district attorney's office declining comment. . . ." (Santa Rosa Republican, August 1, 1939.) (Previous entry, August, 1939.)

"Fines of \$1,500 each were imposed today by United States District Judge Ralph E. Jenney on two San Diego druggists, George B. Irwin and Charles J. Foerster, found guilty of violating the Harrison Narcotics Act. Jenney imposed a three-year suspended penitentiary sentence on Dr. Paul Markley, seventy-eight, who pleaded guilty to charges of violating the drug act, placed Markley on probation for five years and ordered him henceforth to refrain from the practice of medicine and surgery. 'In imposing this restriction, I am conscious of the fact that you probably will not hereafter be able to make a living,' Jenney told Markley. 'Far better so than that you should continue to give medical advice to human beings. As stated substantially by one of the medical experts who has testified herein: "One who has written the prescriptions here in evidence should not be permitted to practice medicine." The mere fact of their writing seems to the court to determine conclusively the correctness of that statement.' Jenney informed Markley the penitentiary sentence was suspended, 'not because I feel that your crime is any the

(Continued on Page 36)





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#### BOARD OF MEDICAL EXAMINERS

(Continued from Page 34)

less reprehensible, nor because I feel that you should not be severely punished, but solely because of your great age of seventy-eight years and the fact that those advanced years appear to have brought with them a mental decay.' Before sentence was imposed, Markley, in a statement to the court, declared he had 'acted in good faith in treating incurable addicts and supposed I had a right to treat such addicts.' . . . Before imposing the sentences in the drug cases, Jenney made the following statement: 'Under the recent amendments to the Harrison Narcotics Act and the corresponding state statutes, tremendous strides have been made in attempting to completely control the manufacture, importation and distribution of narcotic substances. One of the most difficult problems which has confronted those charged with the responsibility for enforcing these acts has been the control of two sources of supply, through the unethical physicians and surgeons, men who close their eyes to the terrible results of their narcotic prescriptions in order to make a few more dollars, and through the druggist who feels that he may entirely relieve himself of moral and legal responsibility. . . . If we are ever to make headway against the drug traffic we must all coöperate. . . . Since opening court here in San Diego, I have had occasion to pass upon some violations of another federal statute. I dealt leniently with the acknowledged offenders, but issued warning to all who might possibly become involved in the future. I shall do the same in this instance, in spite of the fact that many may feel that I have dealt too leniently. In granting clemency, however, I must warn both unethical doctors and pharmacists that violations of the federal narcotic laws will, in the future—and after this one warning—be most severely dealt with.' (San Diego *Tribune*, July 31, 1939.) (Previous entry, August, 1939.)

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"Dr. George Parchen, local chiropractor and his brother, Frank Parchen, chiropractor from Georgia, convicted of second degree murder and abortion in the death on May 5 of Mrs. Martha Wilma Anderson, sixteen, were sentenced today to San Quentin to a minimum sentence of five years each by Superior Judge Gordon Thompson. . . . Counsel for Frank Parchen said no appeal would be made on behalf of his client. Second degree murder carries a penalty of five years to life and abortion two to five years in prison, but Thompson set the terms to run concurrently, establishing a minimum sentence of five years each. The State Board of Prisons and Paroles, however, will set the exact time the brothers will have to serve before becoming eligible for parole. Mrs. Anderson was alleged to have bled to death in Parchen's office after an abortion assertedly had been performed on her on May 3. . . ." (San Diego *Tribune*, July 21, 1939.) (Previous entries, October, 1934; January and April, 1935; April, 1938; July and August, 1939.)

"Deputy District Attorney Seymour Wurfel and District Attorney James B. Abbey today were contemplating whether or not they should try Dr. Rutherford B. Irones, former mayor, once more on charges of stabbing his fiancée, Miss Betty Jane Rand, thirty, on May 30, at the San Diego club. A jury of six men and six women which tried Irones in Superior Judge Gordon Thompson's court was discharged soon after 3 p. m. yesterday when it failed to agree after more than twenty-four hours. . . . Irones told the jury Miss Rand impaled herself upon his penknife when she jumped on his lap. Both Irones and Miss Rand testified they were in love and planned to be married. Miss Rand, who, as a state witness, said she could remember nothing of the events of the night of May 30, received \$10

(Continued on Page 40)

## CANNED FOODS AND HUMAN ENERGY REQUIREMENTS

● An adequate supply of food energy is one of a number of nutrient requirements of man. Fortunately, all nutrients—with the exception of water, minerals and accessory factors—supply chemical energy which the body can utilize to support muscular activity and life processes. Individual foods will, however, vary in the extent to which they supply food energy.

The energy requirements of man and the caloric values of foods have long been fields of active investigation. Energy requirements are measured in terms of a heat unit, the calorie. Many researches (1) show that human caloric requirements are variable and influenced by a number of factors.

During periods such as infancy, childhood, pregnancy and lactation, or during convalescence from wasting illness, energy-yielding nutrients are required both for support of body activity and for tissue formation. However, for the average adult, food energy intake should balance energy expenditure. For adults, variation in activity is the chief factor influencing variation in energy requirement; age, sex, size and body build being comparable. Sedentary occupations may require a food energy intake of 2500 calories per day; 5000 calories might be necessary if the individual engaged in strenuous muscular activity. Close approximations are available for the probable food energy requirements of individuals during different stages of the life cycle and engaged in various activities (1, 2).

Experiments (3) have also demonstrated that oxidation of foodstuffs in the animal body—due allowance being made for the energy contents of the end-products of oxidation—yields the same number of cal-

ories as are produced by the oxidation of similar foodstuffs in the combustion type calorimeter. Since the potential food energy of foodstuffs resides in their contents of carbohydrates, fats and proteins, the available calorific value of any food may be readily calculated (4) by using the factors 4, 9 and 4 calories per gram of these respective nutrients. Of these food components, the carbohydrates and fats are those which contribute most towards attainment of our varied, food energy requirements. Reliable tables are available (5) which list the calorific contributions of most common foods.

It has been established first, that foods—principally by virtue of their carbohydrate and fat contents—contribute energy for use by the human body; and second, that the human energy requirement is conditioned by many factors and may vary widely. An adequate supply of food energy is, of course, one of the necessary objectives of proper nutrition. However, individual attributes such as vitality, strength or endurance are influenced by—but not solely dependent on—proper nutrition, in which adequate food energy is supplied.

The food energy values of commercially canned foods are essentially those of the raw materials from which they are prepared. In some instances, the natural caloric values of the raw foods may have been enhanced by the medium in which they were packed, for example, carbohydrate-bearing syrups or sauces used in the canning procedure. Consequently, since canned foods include products of both high and low caloric intakes, such foods are valuable in formulating diets to supply any intake of food energy which might be desired.

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1. 1938. Nutrition Abstracts and Review. 7, 509.
2. 1933. U. S. Dept. Agr. Circular No. 296.
3. 1931. The Elements of the Science of Nutrition, Fourth Edition, Graham Lusk, Saunders Co., Philadelphia, pp. 61-74.
4. 1938. Chemistry of Food and Nutrition, Fifth

Edition, Henry C. Sherman, Macmillan Co., New York, pp. 150.

5. 1931. U. S. Dept. Agr. Circular No. 146.
1931. U. S. Dept. Agr. Circular No. 50.
1935. Dietetics for the Clinician, Second Edition, M. A. Bridges, Lea & Febiger, Philadelphia.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

*We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-first in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.*



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## BOARD OF MEDICAL EXAMINERS

(Continued from Page 36)

as expense for coming here and testifying." (San Diego Tribune, July 21, 1939.) (Previous entries, March, April, August, 1935; August, 1939.)

"Arrest of four Sonoma county physicians and one druggist, including a former well-known Pittsburg and Antioch practicing physician, on charges of supplying narcotics to a known addict, was announced in San Francisco last night by Paul Madden, Chief of the State Narcotic Division. Included among those named by Madden was Dr. J. B. Blackshaw, fifty, of Sebastopol, who resided in Pittsburg several years ago and later moved to Antioch, where for fifteen years he was a practicing physician. . . . Other physicians arrested, according to Madden, were Dr. E. J. Finnerty, fifty, of Sonoma; Dr. W. P. Woodruff, forty-two, of Cotati, and Dr. R. E. Hanlin, fifty-five, of Santa Rosa. The druggist is Bartil C. Gribbery, forty, of Sonoma. All assertedly pleaded guilty to misdemeanor charges. . . . The woman addict to whom the accused supplied morphin, Madden said, is Helen Ralston, thirty-nine, of Forestville, who operated under nine aliases. She pleaded guilty to

possession of narcotics and of obtaining them under aliases, and was sentenced to the Patton State Hospital. The arrests, Madden said, followed an intensive investigation conducted by his office in Sonoma County." (Pittsburg Post-Dispatch, July 19, 1939.)

"Found guilty of violating Section 2141 of the State Business and Professions Code, relating to medical practice, W. P. Seibert, 335 Monterey Road, South Pasadena, was, in Justice Court this morning, given a county jail sentence of thirty days. The sentence was suspended by Judge J. Russell Morton for two years, on condition that the defendant commit no further violation of the Code and that he repay, within ten days, the sum of \$100, paid by John Veoski, Los Angeles, for alleged treatments. . . ." (Pasadena Star-News, July 11, 1939.)

"Dr. Ralph Wayne Harris, physician, with offices at 5410 Wilshire Boulevard, was convicted last week by United States District Judge Leon R. Yankwich of illegally prescribing a medicine containing narcotics in a manner not prescribed by law. Judge Yankwich heard the case without a jury. Sentence was postponed until September 12,

(Continued on Page 42)

## Advances in the therapy of pneumonia —

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**S**ULFAPYRIDINE has been rightfully given a place comparable to type-specific serum in the treatment of pneumococcal pneumonias.

The ease with which "Sulfapyridine Therapy" can be universally applied makes it readily adaptable to public health use. It is useful in cases in which it is difficult to make a type diagnosis, also in the treatment of multiple pneumococcus infections. In some late cases the drug has appeared to enhance the effectiveness of the serum.

Whether it is equally effective in all types or whether certain strains are drug-resistant has yet to be determined.

The common toxic effects of this drug are now well recognized. Disturbance of renal function is one of the most important complications, hematuria having been noted with considerable frequency. Hemolytic anemias similar to those seen in patients treated with Sulfanilamide also occur.

These more serious toxic reactions may be lessened by the combined use of drug and specific serum therapy, mainly, because less drug is required and the period of treatment is greatly shortened. If serum is administered after the establishment of an effective drug level, a crisis may be expected in some cases within 6-12 hours, and usually smaller quantities of serum are needed.

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## BOARD OF MEDICAL EXAMINERS

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at which time Doctor Harris must appear to face a possible maximum sentence of ten years' imprisonment. Evidence presented by Assistant United States Attorney Francis Whelan disclosed that Doctor Harris had given more than one hundred prescriptions to Harry Cruye, containing a tincture of opium. Doctor Harris said he did not know Cruye was an addict, and that he prescribed for his ailment in good faith. Cruye has pleaded guilty to obtaining narcotics illegally and is awaiting sentence." (Los Angeles *Wilshire Press*, July 10, 1939.) (Previous entry, August, 1939.)

"A charge of unlicensed practice of medicine, according to Police Chief J. N. Black, led to arrest yesterday of

Mrs. Verna G. Shelley, fifty-two, with headquarters at 72 East Santa Clara Street. The woman, who told Police Matron Lorene Caton she represented the Viavi Company of San Francisco, was taken into custody by T. P. Hunter, agent of the State Medical Board. Bail was set at \$500 cash, \$1,000 bond. . . ." (San Jose *Mercury-Herald*, July 19, 1939.)

Assembly Joint Resolution No. 32, adopted by the 1939 California legislature, quotes figures from the 1930 United States census, which records 4,250,000 illiterates in the United States and 15,000,000 more functionally illiterate, with the further statement that California stands twenty-ninth "among the states in percentage of illiteracy, having 125,000 persons who are unable to read or write and about 300,000 adults so limited in their reading and writing ability

(Continued on Page 45)

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### BOARD OF MEDICAL EXAMINERS

(Continued from Page 42)

that they never use those skills. . . ." Said resolution further states that "California has been receiving around 30,000 persons from other states every six months, many of whom are from localities and social groups in which illiteracy is high and schooling is a luxury. . . ."

"Formerly a prominent Oakland physician, Dr. (Lee) Edward Smith, forty-nine, was under sentence today of one to six years in San Quentin for forging a prescription for narcotics. Superior Judge Edward J. Tyrrell revoked his probation, granted last February . . . and sentenced him to serve the two terms concurrently. Doctor Smith was on five years' probation on the possession charge when he was arrested on May 15 for presenting a forged prescription to Charles Thompson, druggist, at 1256 East Fourteenth Street. Thompson recognized the signature as a forgery and called the police. It bore the name of Dr. A. E. T. Buckwell, 3609 Victoria Avenue, for whom Thompson had filled many prescriptions. The prisoner practiced medicine here for sixteen years until his license was revoked (by the Board of Medical Examiners) at his own request in 1933, according to Deputy Probation Officer Robert Tyson. Recently he has been employed as a WPA project supervisor. . . . The penalty carries a term of not more than six years in prison, while the forgery of a prescription offense provides for a sentence of from six months to six years." (Oakland Tribune, July 2, 1939.) (Previous entries, December, 1932; April, May, and December, 1936.)

If you want to know if your brain is flabby, feel of your legs.—Bruce Barton.

**Workmen's Compensation Insurance Law (Assembly Bill No. 1521).**—The people of the State of California do enact as follows:

Section 1. Section 3710 of the Labor Code is hereby amended to read as follows:

3710. Failure to secure the payment of compensation under this article is a misdemeanor. Proof of continued violation of this section for thirty days makes mandatory on the tribunal before whom the charge of violation of this section is tried the imposition of a fine of not less than \$300. Prosecutions for criminal violations of the provisions of this division may be conducted by the appropriate public official of the county in which the offense is committed, by the Attorney-General, by the attorney for this Commission and/or by any attorney in the civil service of the Industrial Accident Commission specifically designated for such purposes.

Section 2. Section 4908 of the Labor Code is hereby amended to read as follows:

4908. A claim for compensation for the injury or death of any employee, or any award or judgment entered thereon, has the same preference over the other debts of the employer, or his estate and of the insurer which is given by the law to claims for wages. Such preference is for the entire amount of the compensation to be paid. This section shall not impair the lien of any previous award.

Section 3. Section 3713 is hereby added to the Labor Code to read as follows:

3713. Every employer subject to the compensation provisions of this code, and not self-insured, shall post and keep posted in a conspicuous location at his headquarters or at one of his places of employment, as defined in Division V of this code, a notice which shall state the name

(Continued on Next Page)



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(Continued from Preceding Page)

of the current compensation insurance carrier of such employer. Failure to keep the notice so conspicuously posted shall constitute a misdemeanor, and shall be *prima facie* evidence of noninsurance.

Section 4. Section 3712 is hereby added to the Labor Code to read as follows:

3712. The securing of the payment of compensation in a way provided in this division is essential to the functioning of the expressly declared social public policy of this state in the matter of workers' compensation; and the conduct or operation of any business or undertaking without full compensation security, in continuing violation of such social policy, is hereby declared to be a nuisance which may be abated upon suit brought in the name of the Industrial Accident Commission before the superior court of any county in which all or some part of such business is being thus unlawfully conducted or operated. In no such proceeding may any filing fee be charged to the plaintiff, the Industrial Accident Commission; nor may any charge or cost be imposed for any act or service required of or done by any state or county officer or employee in connection with such proceeding. No bond shall be required from the Commission as a prerequisite to the granting of a restraining order. If the court or the judge before whom the order to show cause in such proceeding shall be made

returnable, shall find that the defendant is conducting or operating a business or undertaking without the full compensation security required, he shall forthwith, and without continuance, issue an order restraining the future or further conduct and operation of said business or undertaking so long as such violation of social public policy shall continue. Such action may be prosecuted by the Attorney-General of California, the district attorney of the county in which suit is brought, the city attorney of any city in which such business or undertaking is being operated or conducted without full compensation security, or any attorney possessing Civil Service status, who is an employee of the Industrial Accident Commission who may be specifically designated by said Commission for such purpose. No finding made in the course of any such action shall be binding on the Commission in any subsequent proceeding before it for benefits under this division.

Section 5. Section 3714 is hereby added to the Labor Code to read as follows:

3714. The Commission may appoint any attorney possessing Civil Service status who is an employee of the Industrial Accident Commission to also perform the duties of Compensation Enforcement Officer, whose duty it shall be to enforce compliance with the terms of this division, and to prosecute or assist in prosecutions for violations of it.



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Apparent discrepancies in blood-pressure readings of the same individual are not always due to changes in the pressure from time to time under different conditions, but may be due to differences in the methods and interpretations used by the observers. A recent survey by several investigators revealed a serious lack of agreement among physicians as to the correct technique for taking and interpreting the blood pressure. Equally confusing was the situation among insurance companies as to what they should require of their examiners in this regard.

The committees state: "Certain factors inherent in the physician, such as variations in accuracy of hearing, must be recognized as important. A physician who is aware that his hearing has become impaired should use a stethoscope which is amplified to a greater extent, and in the event of marked deafness electrically amplified or other mechanical devices should be utilized.

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At recent medical exhibits lack of confidence among physicians in the rat test has been sensed. Obviously, one reason is that a single factor of the B vitamin group, held forth to have stated units of the

antineuritic or the growth factor, may not show these units and results unless the other factors with which the units were gotten are at hand for the physician.

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The workers find Vegex of uniform potency in the B vitamin complex; in the extrinsic factor (anemia). Groen and Snapper also mention the intrinsic factor. The iron content, 0.05%—partly from the grain mash and partly reinforced with ferrous malate, with the copper complement of 0.00245%—the copper coming from the yeast and not added—undoubtedly have significance.

## VEGEX IN ANEMIAS

Conservatism must be the rule in projecting products for use in human disease. The recovery and life of the patient, the professional reputation of the physician are at stake. The aid shown in the anemias has really lagged behind medical reports in presenting Vegex to the physicians. It is as it should be. With the

use in macrocytic anemia reported by Sturgis, inquiries from physicians are renewed.

Groen and Snapper, in an article in the American Journal of the Medical Sciences, May 1937, entitled "Dietary Deficiency as a Cause of Macrocytic Anemia" reports a case as follows:

"After a control period on a meat-free diet, during which the blood findings did not change, the child was given a mixed diet containing plenty of meat, fruit, vegetables, and one liter of milk daily (Fig. 6). The number of reticulocytes rose 14%, hemoglobin and erythrocytes to 39% and 1,500,000 per c.mm., respectively. On further addition of three teaspoonfuls of 'Vegex' (a preparation rich in B vitamins) to this diet a second reticulocyte response was obtained: the reticulocyte count rising this time to 18.4%. Hemoglobin and erythrocytes increased rapidly; April 5, 2 months after her admission, the hemoglobin was 80%, the erythrocytes

4,000,000 per c.mm.; the Price-Jones curve had returned to normal and the excess of urobilin had disappeared from the urine."

"A second gastric analysis now showed a completely normal curve. One and one-half hour after the test meal the acid values were 36 free and 48 combined hydrochloric acid. There was an abundant flow of gastric juice from the tube (Fig. 7)."

"After her discharge the patient was kept on a mixed diet. Her general and hematologic condition remained excellent as verified at a recent examination. Neither during the treatment nor after her discharge did she receive any liver or iron."

larly sustained. Ungley, in the Quart. Journ. Med., July, 1933, page 381, says "in addition to the effect of Vegex-Marmite on blood regeneration and upon symptoms referable to anemia, there occurred an increase in the sense of well-being, and a marked increase in appetite."

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In pernicious anemia, Vaughan in "The Anemias" summarizes that certain patients respond to "large doses." Wilkinson, Klein, Ungley, Wills state that Vegex is of distinct value in maintenance cases and definite value as an aid in the liver extract and other treatment.

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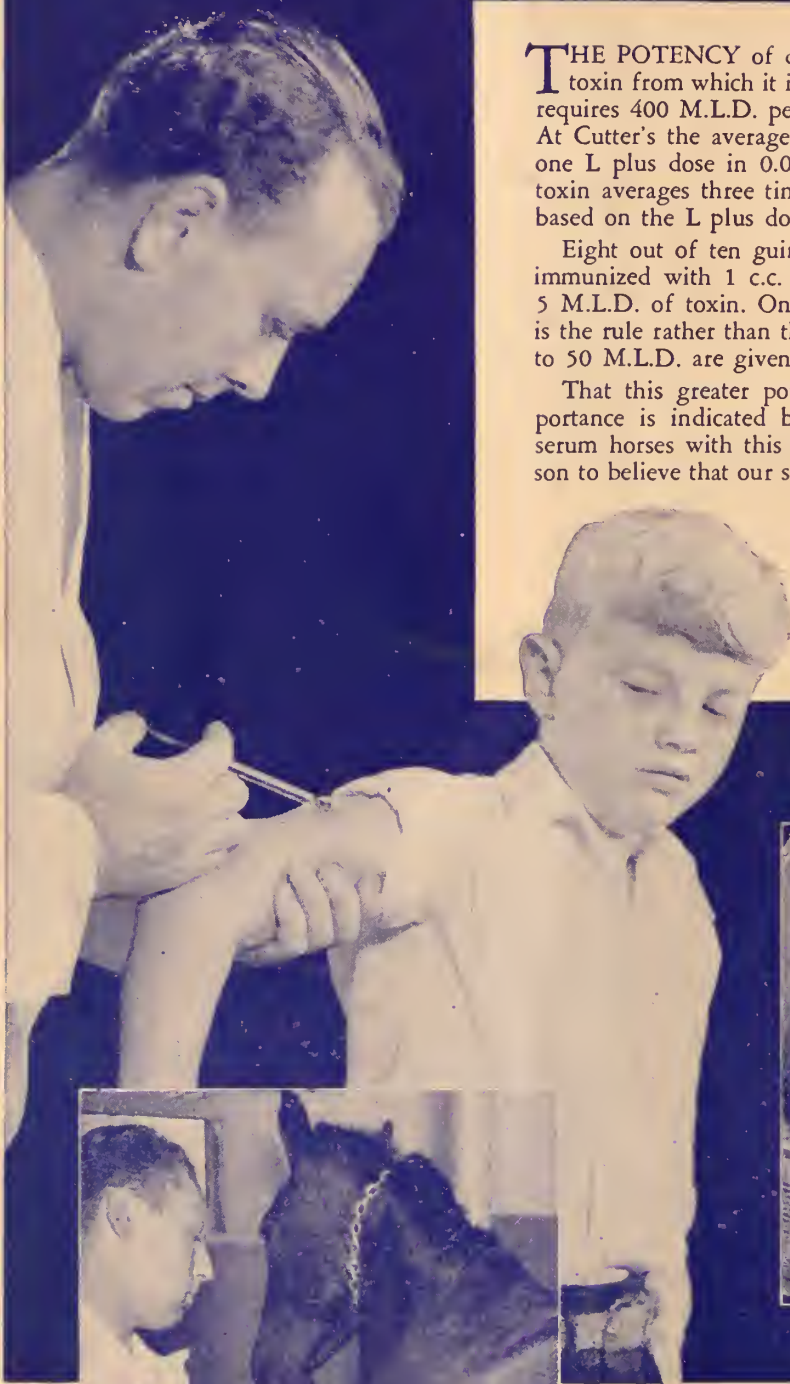
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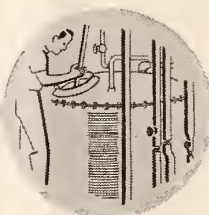
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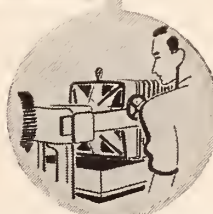
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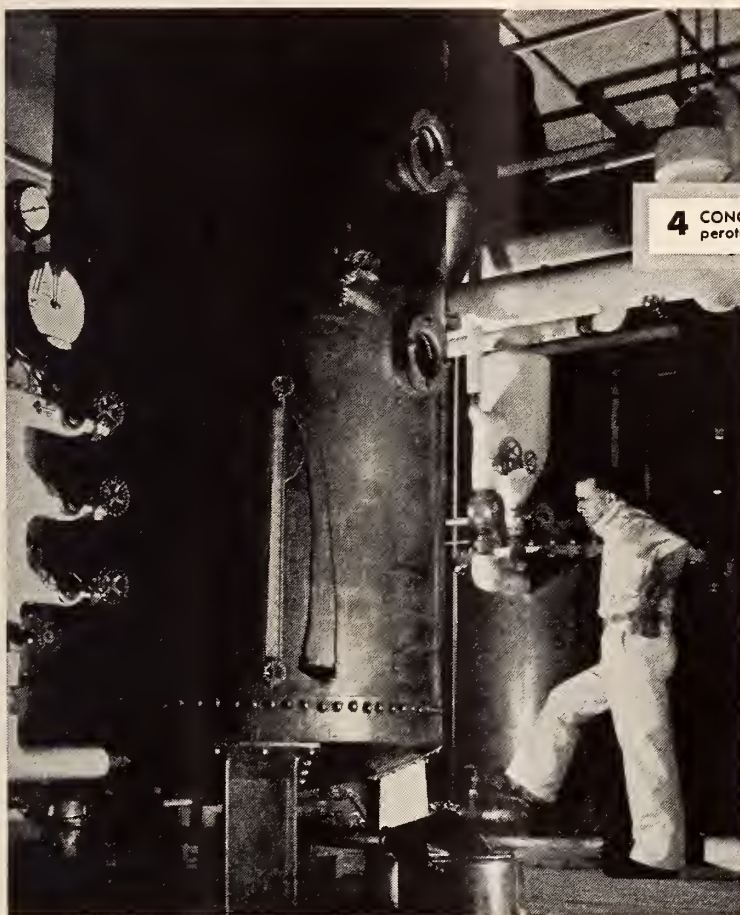
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**Butte County Medical Society**  
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Secretary, J. O. Chiapella, 131 Broadway, Chico.  
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**Contra Costa County Medical Society**  
President, Kaho Daily, 314 Tenth Street, Richmond.  
Secretary, Clifford E. Dietderich, 1306 Pomona Avenue, Crockett.  
Meeting, *Second Tuesday, 8 p. m.*

**Fresno County Medical Society**  
President, Roland W. Dahlgren, 1006 Mattei Building, Fresno.  
Secretary, Lester R. Nielson, 1006 Mattei Bldg., Fresno.  
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

**Humboldt County Medical Society**  
President, Samuel P. Burre, 507 F Street, Eureka.  
Secretary, Joseph S. Woolford, 350 E Street, Eureka.  
Meeting, *First Thursday.*

**Imperial County Medical Society**  
President, Henry B. Graeser, 115 E. Fifth Street, Holtville.  
Secretary, William A. Clarke, Holtville.  
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

**Inyo-Mono County Medical Society**  
President, Lloyd S. Bambauer, 705 Home Street, Bishop.  
Secretary, Selda E. Anthony, 303 No. Edwards, Independence.  
Meeting, *Fourth Wednesday, Methodist Church, Bishop, except December, January, February.*

**Kern County Medical Society**  
President, C. I. Mead, Haberfelde Building, Bakersfield.  
Secretary, C. S. Compton, 428 C Street, Bakersfield.  
Meeting, *Third Thursday, 8:00 p. m.*

**Kings County Medical Society**  
President, P. K. Edmunds, Corcoran.  
Secretary, William A. Johnstone, Hanford.  
Meeting, *Second Monday, 8 p. m., Legion Hall, Hanford.*

**Lassen-Plumas-Modoc County Medical Society**  
President, C. I. Burnett, Susanville.  
Secretary, Fred J. Davis, Jr., Westwood.  
Meeting, *On Call.*

**Los Angeles County Medical Association**  
1925 Wilshire Boulevard, Los Angeles  
President, William H. Daniel, 1930 Wilshire Boulevard, Los Angeles.  
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.  
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

**Marin County Medical Society**  
President, Harry N. Hensler, Home Market Building, San Anselmo.  
Secretary, Carl W. Clark, 510 B Street, San Rafael.  
Meeting, *Fourth Thursday, 7:00 p. m., Marin Golf and Country Club.*

**Mendocino-Lake County Medical Society**  
President, Robert B. Smalley, Willits.  
Secretary, Dallas Wagner, Fort Bragg.  
Meeting, *On Call.*

**Merced County Medical Society**  
President, E. M. Soderstrom, Merced.  
Secretary, Fred O. Lien, Shaffer Building, Merced.  
Meeting, *Third Thursday, Hotel Tioga, Merced.*

**Monterey County Medical Society**  
President, Walter P. Farr, 308 Main Street, Salinas.  
Secretary, Herbert Archibald, Salinas National Bank Building, Salinas.  
Meeting, *First Thursday.*

**Napa County Medical Society**  
President, Alexander H. McLeish, Veterans Home Hospital, Yountville.  
Secretary, M. M. Booth, Bruck Building, St. Helena.  
Meeting, *First Wednesday.*

**Orange County Medical Society**  
President, M. W. Hollingsworth, 1806 No. Main Street, Santa Ana.  
Secretary, Glenn Curtis, 323 North Pomona Street, Brea.  
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital Orange.*

**Placer County Medical Society**  
President, William M. Miller, Auburn.  
Secretary, Robert A. Peers, Colfax.  
Meeting, *At Call of President.*

**Riverside County Medical Society**  
President, N. K. Bear, 3655 Fourteenth Street, Riverside.  
Secretary, Thomas A. Card, 3616 Main Street, Riverside.  
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

**Sacramento Society for Medical Improvement**  
President, Manuel Azevedo, 1027 Tenth Street, Sacramento.  
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.  
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

**San Benito County Medical Society**  
President, J. M. O'Donnell, Hollister.  
Secretary, L. E. Smith, Hollister.  
Meeting, *At Call of President.*

**San Bernardino County Medical Society**  
President, Delbert B. Williams, 1151 D Street, San Bernardino.  
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.  
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

**San Diego County Medical Society**  
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego  
President, Hall G. Holder, 1109 Medico-Dental Building, San Diego.  
Secretary, C. V. Bernardini, Medico-Dental Building, 233 A Street, San Diego.  
Meeting, *Second Tuesday, El Cortez Hotel.*

**San Francisco County Medical Society**  
2180 Washington Street, San Francisco  
President, Edwin L. Bruck, 384 Post Street, San Francisco.  
Secretary, L. Henry Garland, 2180 Washington Street, San Francisco.  
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

**San Joaquin County Medical Society**  
President, N. P. Johnson, Medico-Dental Building, Stockton.  
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.  
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

**San Luis Obispo County Medical Society**  
President, J. B. V. Butler, 722 Marsh Street, San Luis Obispo.  
Secretary, E. M. Bingham, County Health Department, San Luis Obispo.  
Meeting, *Third Saturday, 8:30 p. m., Gold Dragon Cafe, San Luis Obispo.*

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**San Mateo County Medical Society**  
President, N. D. Morrison, 205 Third Avenue, San Mateo.  
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.  
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

**Santa Barbara County Medical Society**  
President, W. H. Johnston, 1515 State Street, Santa Barbara.  
Secretary, D. H. McNamara, 317 W. Pueblo Street, Santa Barbara.  
Meeting, *Second Monday, Cottage Hospital.*

**Santa Clara County Medical Society**  
President, Cletus S. Sullivan, Bank of America Building, San Jose.  
Secretary, Leslie B. Magoon, 652 East Santa Clara Street, San Jose.  
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

**Santa Cruz County Medical Society**  
President, John T. Harrington, 10 Cooper Street, Santa Cruz.  
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.  
Meeting, *First Monday, 7:30 p. m., Club Rio del Mar, Aptos.*

**Shasta County Medical Society**  
President, B. F. Saylor, Redding.  
Secretary, Morton J. Murphy, 1542 Market Street, Redding.  
Meeting, *Second Monday.*

**Siskiyou County Medical Society**  
President, J. B. McGuire, Mt. Shasta.  
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.  
Meeting, *Sunday on call.*

**Solano County Medical Society**  
President, Ream S. Leachman, 727 Sonoma Street, Vallejo.  
Secretary, John W. Green, Box 539, Vallejo.  
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

**Sonoma County Medical Society**  
President, D. C. Oakleaf, 301A West Street, Healdsburg.  
Secretary, T. E. Albers, 600 B Street, Santa Rosa.  
Meeting, *Second Thursday.*

**Stanislaus County Medical Society**  
President, John A. Cooper, 1024 J Street, Modesto.  
Secretary, Hoyt R. Gant, 403 Beaty Building, Modesto.  
Meeting, *Second Friday, 7:30 p. m., Hotel Hughson.*

**Tehama County Medical Society**  
President, O. T. Wood, Red Bluff.  
Secretary, R. G. Frey, Red Bluff.  
Meeting, *At Call of President.*

**Tulare County Medical Society**  
President, Newton Miller, 231 No. Main Street, Porterville.  
Secretary, Ray Cronemiller, Exeter.  
Meeting, *Sunday Evening once a month.*

**Ventura County Medical Society**  
President, W. F. Mosher, 34 No. Ash Street, Ventura.  
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.  
Meeting, *Second Tuesday, Ventura County Country Club.*

**Yolo-Colusa-Glenn County Medical Society**  
President, H. G. Potter, Winters.  
Secretary, W. J. Blevins, Jr., Woodland.  
Meeting, *First Tuesday.*

**Yuba-Sutter County Medical Society**  
President, P. E. Thunen, I. O. O. F. Building, Marysville.  
Secretary, Leon M. Swift, I. O. O. F. Building, Marysville.  
Meeting, *First Tuesday.*

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**Nature Provides Remarkable Devices to Plants for Water Conservation.**—Many plants have remarkable devices for conserving their water supply, thus enabling them to overcome the handicap of not being able to move where water is available. Mary Geisler Phillips of Ithaca, New York, points out in *Hygeia*, the health magazine.

Some plants have their leaves and branches so arranged that rain will drip from them to the ground right where it will do the most good. The leaves of a tree are covered with a waxy skin, from which rain runs easily, and are arranged one above the other so that the drops of water run from the top leaves to the surface of those below which are a little nearer the border.

Another device is the way the leaves of a plant grow in relation to the kind of root. The rhubarb plant, for example, does not allow rain to drop off the tips of its large leaves; instead, the leaves catch every drop that comes to their broad expanse, let it run down the deep veins to the center and then pour it like a funnel toward the stem, down which it flows to wet the ground close to the plant. That is where this plant needs it most, for the root is long and tapering, with few side rootlets.

Onion leaves are built like troughs, down which water may run to the stem to be poured right on the bulb. The hairy leaves of potato and tomato plants let the water roll off their tips to wet the ground some distance from the central stem, where branch roots are spread underneath.

The ash tree has the stems of its leaves so closely grooved that they form tubes in which water stays for several days, bathing the delicate absorptive cells on their inner surface. The aspen leaf carries at the point where the leaf joins the stem, two tiny cups, the bottoms covered with cells that readily take up water.

Although the human body has developed no such devices for catching and holding water, it is as essential for human beings as for other animals and plants. Water is second

only to oxygen as a vital need; two-thirds of the adult body is composed of water, held within the billions of cells of the body. It is the largest constituent of every soft tissue, and even hard bone cells are more than one-third water.

Other reasons for our eternal thirst are these: Every cell in the body must be constantly bathed in fluids to do its work well; moving parts of the body must be lubricated; food taken into the body must be dissolved in the process of digestion; digested food must be carried in a fluid medium to all parts of the body; waste products must be flushed out, and the lungs and skin cannot perform their work unless they are moist.

Man must frequently renew his own supply of water because his body is constantly utilizing what has been taken in. There is a continual loss of water through the pores of the skin. Each time we exhale air, some water is carried with it. An adult loses from four to five pints of water daily through this and other methods.

One important function of body water is perspiration, which helps keep the temperature of the body always the same. When the outside air is cold, little evaporation or sweating from the surface of the skin takes place, but when the temperature of the surrounding air is higher than normal body temperature, water evaporation is needed to remove the excess heat. In hot dry atmospheres the amount of water lost by evaporation is enormous, but when the air is cold, not only does sweating stop, but less water is brought near the surface of the body where it would be cooled.

The morality of clean blood ought to be one of the first lessons taught us by our pastors and teachers. The physical is the substratum of the spiritual; and this fact ought to give to the food we eat, and the air we breathe, a transcendent significance.—Tyndale.



## OFFICERS OF SCIENTIFIC SECTIONS, CALIFORNIA MEDICAL ASSOCIATION

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William R. Molony, Sr., Los Angeles.....	(1939-1940).....	John C. Ruddock, Los Angeles.....	(1939-1940).....
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Lowell S. Goin, Los Angeles.....	(1940-1941).....	Roy E. Thomas, Los Angeles.....	(1940-1941).....

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### Nevada State Medical Association

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### Miscellaneous California Medical Organizations

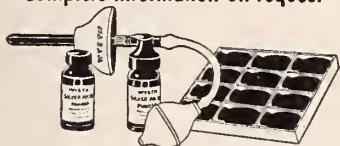
<b>California Northern District Medical Society</b>		<b>Southern California Medical Association</b>	
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Secretary—J. Homer Woolsey, Woodland Clinic, Woodland.		Secretary, John B. Doyle, 501 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.	
<b>Department of Public Health of the State of California</b>		<b>The Public Health League of California</b>	
San Francisco—State Office Building, McAllister and Larkin streets, UNDERHILL 8700.		Executive Secretary, Ben H. Read, San Francisco office, 244 Kearny Street, phone SUtter 8470. Los Angeles office, Room 563, 1151 South Broadway, phone PRospect 5711.	
Sacramento—State Office Building, Tenth and L streets, Capital 2800.			
Los Angeles—State Office Building, 217 West First Street, MADison 1281.			
<b>Board of Medical Examiners of the State of California</b>			
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Complete remission of symptoms and removal of the trichomonad from the vaginal smear usually is effected following the Silver Picrate treatment for trichomonas vaginitis.

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**Life Expectancy Is Increasing for Muscular Disease Victims.**—Myasthenia gravis, a progressively chronic condition characterized by weakness of the voluntary muscles, is a disease which can now be removed from the category of hopelessness and almost invariable fatality to that of reasonable well-being and markedly improved life expectancy, through the use of two drugs reported in *The Journal of the American Medical Association*.

Marked improvement in the muscles of five patients with this disease who were treated with guanidine hydrochloride is reported by Ann S. Minot, Ph.D., Katharine Dodd, M.D., and Samuel S. Riven, M.D., Nashville, Tennessee.

In another article in *The Journal* Henry K. Viets, M.D., and Robert S. Schwab, M.D., Boston, discuss the results they obtained in forty-four cases of myasthenia gravis treated with prostigmine supplemented by guanidine and other drugs. Only five of the patients have died, and two of these died of causes incident to age and two more failed to take prostigmine consistently. Remissions of the disease have occurred in seven cases, so that prostigmine is no longer required. This is a somewhat larger percentage than might be expected in the natural course of the disease. Five patients, moreover, have been able to reduce their intake of prostigmine.

Evaluating the methods of treatment described by these two groups of investigators, Doctor Viets maintains: "A fair conclusion to draw with regard to remissions is that we now have drugs, such as guanidine, prostigmine and ephedrine, that carry patients through serious attacks of myasthenia gravis, even preventing death, and, therefore, permit them to recover to a state where remission is possible. If that is so, we are saving a large number of patients who previously would have succumbed to the disease. Certainly, of the forty-four patients whom we have observed, at least one-third and perhaps one-half would

have died within a year or two after they were first seen, without the beneficial effect of ephedrine, guanidine, and prostigmine."

Myasthenia gravis may so involve the muscles that the patient is unable to swallow, walk, talk, open his eyes, or eat. Any or all of the muscles may be involved. As early as 1672 the set of symptoms comprising this condition was recognized, but not until after 1930—more than two and a half centuries later—was any treatment discovered which gave any hope of proving successful.

It is not yet known how guanidine brings about the prompt, temporary improvement in myasthenia, nor is the mechanism involved in the action of prostigmine understood. While the experiences reported indicate these drugs have a place in the symptomatic treatment of myasthenia, their rôle as a cure of the underlying condition is undetermined. It is suggested that: "Perhaps the greatest interest from the physiologic point of view is that each new drug that brings about a response in this disease gives us a new method of approach to a condition about the cause of which we know nothing."

**Factors Involved in Improved Vision.**—Many persons erroneously believe that glasses are prescribed to cure the condition causing poor vision. However, usually eyeglasses act to improve the sight only while they are being worn. They do not change the structure of the eye. Actual improvement in sight depends more on bodily health than on the wearing of lenses. It is true that some who have worn them in childhood have later discarded them, but this is not because the glasses cured the faulty condition, but because the shape of the eyes changed as they developed, so that lenses were no longer necessary.—*Hygeia*.



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**Sulfanilamide May Be Given Despite Moderate Toxicity.**—Symptoms of mild or moderately severe toxicity, or adverse reactions, due to sulfanilamide do not necessitate the discontinuance of the use of the drug, Curtis F. Garvin, M. D., Cleveland, contends in *The Journal of the American Medical Association*.

Symptoms of mild toxicity, such as malaise, lassitude, weakness, headache, dizziness, depression, loss of appetite, slight dryness and blueness of the skin, ringing in the ears, and nausea, are frequently encountered in patients receiving sulfanilamide. With rare exceptions, when these mild reactions occur the drug can be given despite them.

When moderately severe symptoms of toxicity occur, such as marked dryness and blueness of the skin, difficult breathing, distinctly lowered carbon dioxide combining power, severe vomiting, diarrhea, abdominal pain, itching

of the skin and slowly developing anemia, watchfulness, and possibly a reduction of dosage, are indicated.

Symptoms of severe toxicity such as fever, skin rash, acute anemia, too few white cells in the blood, psychosis or jaundice, demand that the drug be discontinued immediately.

In order to avoid these reactions, especially the ones that can prove drastic, such as anemia, fever and jaundice, it is necessary to observe the patient closely, examine the blood daily and avoid the use of sulfates and other drugs. Sulfanilamide should not be given to patients with anemia, too few white cells or liver damage.

The treatment of these toxic manifestations consists of the immediate withdrawal of the drug, bed rest, forcing of fluids, blood transfusion, and such supporting measures as are indicated.



## HOSPITALS AND SANATORIUMS

The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

<b>ALEXANDER SANITARIUM</b> Nervous and Mental Diseases Belmont, California	<b>COMPTON SANATORIUM AND LAS CAMPANAS HOSPITAL</b> Neuropsychiatric and General Compton, California	<b>POTTENGER SANATORIUM AND CLINIC</b> For the Treatment of Tuberculosis Monrovia, California
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**Food Fads and Superstitions Are Debunked by Physician.**—In spite of the vast numbers of food fads and superstitions prevalent today, only a few simple principles are needed to insure proper diet, Solomon Strouse, M. D., Los Angeles, California, declares in *Hygeia*, the health magazine.

Doctor Strouse, who finds no value in memorizing the constituents of various foods, asserts: "It is really not necessary for the average human being, living a normal life without illness, to know more than the simple fact that a diet containing milk, fruits, a variety of vegetables, bread and butter, some meat and an egg or two daily will pretty well cover most of the fundamental nutritional requirements for proper living.

"Assuming that there is an available supply and sufficient funds with which to buy food, most people will not only eat enough, but will choose wisely the foods needed for proper living."

While the depression might have been thought to affect the nutritional status of the American people, through its effect on their pocketbooks, a study recently made by an expert student of nutrition revealed practically no increase in malnutrition. The food supplied by relief agencies has been carefully standardized in order to give the greatest value per dollar.

Doctor Strouse refutes the popular fad to refrain from eating meats, especially the so-called red meats. "Without the slightest proof in the world," he says, "it has been asserted that red meat is harmful for rheumatism, for high blood pressure, hardening of the arteries, and many other things. Yet protein is an absolute necessity in everyone's diet. It is still questionable whether protein from vegetable sources is fully equivalent in replacement value to protein from animal sources. Vegetarianism is, therefore, not good dietetics."

Showing the fallacy of the current fad which recommends that none of the main dietary constituents be mixed

with another at the same time, the author points out that the followers of this fad "forget entirely that in nature there are very few 'pure' foods. Meats contain proteins and fats. Vegetables contain protein, fat, and carbohydrate. So does milk. If nature intended foods to be individual entities, why does she not provide them for her sons?"

"Food poisoning" is a much misunderstood term, Doctor Strouse believes. "Although occasional outbreaks of food poisoning do occur," he asserts, "they are rare and almost invariably affect a group of persons who have all eaten the same food. When an individual gets sick after eating, it is more often true that the person, and not the food, is responsible. It is too easy a logic to assume that illness following eating was caused by food, and this tendency to self-diagnosis is, incidentally, highly dangerous."

As for the relation of food to longevity, at the present time analysis of available data indicates absolutely no relation whatever, except on the score of quantity. Constant undernutrition and persistent overeating are distinctly harmful and may shorten life.

**Use of Sulfapyridine Requires Care.**—The necessity of frequent and careful bone marrow and blood studies when sulfapyridine is used for prolonged or intermittent periods, is given additional emphasis by the report of three cases of granulocytopenia (deficiency of granule blood cells) in children, made by Nathan Rosenthal, M. D., and Peter Vogel, M. D., New York, in *The Journal of the American Medical Association*.

Sulfapyridine is a valuable drug in the treatment of pneumonia in adults and children. It is usually effective within two or three days, but is as toxic as sulfanilamide.

In addition to the continuous nausea which usually follows the taking of sulfapyridine, dangerous toxic complications may arise, of which granulocytopenia and jaundice are the most important symptoms.

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**Coöperation Required to Solve Medical Service Problems.**—A satisfactory solution to the problem of medical service requires the development of coöperative plans between the medical profession and official health agencies, I. C. Riggin, M. D., Richmond, Virginia, declares in a paper on "The Expansion of Functions and Responsibilities of Health Departments," in *The Journal of the American Medical Association*.

"While public health is preventive," he maintains, "and the practice of medicine by the general practitioner as well as by many of the specialists is of necessity both preventive and curative, there is no reason why the practice of private medicine and public health should not go forward without divergence of thought and opinion and through proper coördination of efforts, develop and render more and better service to all concerned."

Changes in economic conditions in the country during the past several years have presented new problems both to the medical profession and to public health departments, Doctor Riggin observes. "There have been added responsibilities of the health departments in relation to certain diseases and crippling conditions," he says. "It is an indisputable fact that many of these diseases or conditions are of long duration, and many of those suffering from such diseases or conditions are unable to provide for themselves needed medical care and hospitalization."

"With the knowledge of the public concerning such diseases and conditions, and with the death rates of certain diseases steadily increasing, it has been necessary for the functions of the health departments to be expanded in many instances in an effort to meet this need. Certain diseases, such as cancer and heart disease, have steadily increased as a cause of death, and the health departments are receiving requests not only to furnish information and

education which would lead to early diagnosis, but even to provide facilities for treatment and care in coöperation with the medical profession.

"These added functions and responsibilities of health departments can properly and successfully be carried out in the many fields which must be undertaken only with the coördination and correlation of the activities of those engaged in preventive medicine, industrial medicine, and public health. The physician will continue to perform his duty to humanity as far as he is able to do so, but the care of the indigent sick is a responsibility which the physician cannot carry alone, and it is not his place to assume this responsibility without just compensation for his services."

**Tuberculosis Death Among Young Women.**—The excess of deaths from tuberculosis among young women over that of males of the same age has long been regarded as an enigma by the medical profession. In an exhaustive study made in New York and Detroit, every death during one year from tuberculosis among young women was carefully investigated and reveal facts emerged from an analysis of the material obtained.

School life, race, nativity, participation in industrial life, insufficient clothing, poor food habits including the ever-present dieting fads, lack of sleep and too much recreation seem negligible in their influence. The real hazard is the psychic and physical changes attendant upon adolescence and maturity. Early marriage and child-bearing increase the death rate from tuberculosis in this group.—E. Nicholson, Study of Tuberculosis Among Young Women, National Tuberculosis Association Social Research Series No. 7.



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**Anemia Due to Sulfanilamide.**—Although acute anemia, with a decrease of hemoglobin and white blood cells, is the most frequent serious complication of sulfanilamide medication, only two deaths from this cause have been reported, the second one being made by Simon Koletsky, M. D., Cleveland, in *The Journal of the American Medical Association*.

This type of anemia occurs more frequently in children than in adults. The development of the anemia is not related to the type of infection treated, the dosage of sulfanilamide or the concentration of the drug in the blood.

Doctor Koletsky states: "In every instance so far the anemia has developed during the first week of sulfanilamide treatment. The hemoglobin (red pigment of the blood) begins to fall between twenty-four and seventy-two hours after the beginning of medication and usually reaches its lowest level within the next three days."

The author's patient was treated with sulfanilamide for an acute pus-discharging mastoiditis. The anemic process began on the second day of treatment and progressed during the next three days. Jaundice was observed on the third day of treatment and the patient complained of headache and became disoriented. The condition of the patient's blood became steadily worse and he died in coma six days after treatment with sulfanilamide was begun. Death was attributed to the anemia and not to the infection.

Doctor Koletsky points out: "It is of interest that both patients who died (of this anemia) had syphilis. That syphilis may affect the hemopoietic (blood-manufacturing) system is indicated by the frequent development of secondary anemia in the second and third stages of the disease. The occurrence of these two fatalities in syphilitic patients raises the question as to whether some alteration of the hemopoietic apparatus incident to syphilis may be related to the fatal outcome.

"The prognosis in this complication is usually good. Rapid recovery follows withdrawal of the drug, forcing of fluids and blood transfusion. Transfusions should be given promptly, and repeatedly if necessary, because sulfanilamide may produce sufficient hemolysis (separation of the coloring matter of the red blood cells from the cells) to cause death from anemia."

**The Importance of Being Alone.**—It is important to the child's emotional stability that he have some opportunity to commune with himself. If it is not possible to give him a room of his own, there should at least be one where he can go to be alone. In addition, he should have a desk or table, some place absolutely free from prying eyes, where he can keep his most dearly beloved possessions.—*Hygeia*.

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## BOOK REVIEWS

### BOOKS RECEIVED

**Epidemic Encephalitis.** Etiology, Epidemiology, Treatment. Third Report by the Matheson Commission, Willard C. Rappleye, Chairman. Cloth. Pp. 493. Price, \$3.00. New York: Morningside Heights; Columbia University Press, 1939.

**John Howard.** (1726-1790). Hospital and Prison Reformer: A Bibliography. By Leona Baumgartner, M. D., Ph. D., with introduction by Arnold M. Muirhead, M. A., Oxon. Board. Pp. 79. Price, \$1.00. Baltimore: The Johns Hopkins Press, 1939.

**Surgical Applied Anatomy.** By Sir Frederick Treves, Bart. Tenth Edition, revised by Lambert Rogers, M. Sc., F. R. C. S., F. R. C. S. E., F. R. A. C. S., F. A. C. S., Professor of Surgery, University of Wales; Honorary Surgeon and Director of the Surgical Unit, Cardiff Royal Infirmary; Formerly Hunterian Professor, Royal College of Surgeons of England; Reader in Surgery, University of London; Examiner in Anatomy to the Conjoint Examining Board in London, and Prosector to the University of London. Cloth. Pp. 748, illustrated with 192 figures, including 66 in color. Price, \$4.50. Philadelphia, Lea & Febiger, 1939.

**The Rectum and Colon.** By E. Parker Hayden, A. B., M. D., F. A. C. S., Assistant in Surgery in the Harvard Medical School, Boston, Massachusetts; Assistant Surgeon and Chief of Rectal Clinic, Massachusetts General Hospital, Boston, Massachusetts. Cloth. Pp. 434, illustrated with 169 engravings. Price, \$5.50. Philadelphia: Lea & Febiger, 1939.

**A Synopsis of Regional Anatomy.** By T. B. Johnston, M. D., Professor of Anatomy, University of London, Guy's Hospital Medical School. Fourth Edition. Cloth. Pp. 462, with 17 illustrations. Price, \$4.50. Philadelphia: Lea & Febiger, 1939.

**Nitrous Oxide-Oxygen Anesthesia.** McKesson-Clement Viewpoint and Technique. By F. W. Clement, M. D., Director of Anesthesia at Flower Hospital; The State Hospital for the Insane; Lucas County Hospital; Toledo Dental Dispensary; Anesthetists to Toledo, Mercy and St. Vincent's Hospitals, Toledo, Ohio. Cloth. Pp. 274, illustrated with 70 engravings. Price, \$4.00. Philadelphia: Lea & Febiger, 1939.

**The New International Clinics.** Original Contributions: Clinics; and Evaluated Reviews of Current Advances in the Medical Arts. Edited by George Morris Piersol, M. D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Volume III, New Series Two. Cloth. Pp. 332, illustrated. Philadelphia: J. B. Lippincott Company, 1939.

**Forensic Medicine.** By Sydney Smith, M. D. (Edinburgh), F. R. C. P. (Edinburgh), D. P. H., Regius Professor of Forensic Medicine, University of Edinburgh; Formerly Principal Medico-Legal Expert and Director of Medico-Legal Section, Egyptian Government Service, and Professor of Forensic Medicine, University of Egypt; Formerly Medical Officer of Health, Department of Public Health, New Zealand, and Examiner in Public Health to the University of New Zealand. Including a section on American Medico-Legal Procedure by Alan R. Moritz, B. Sc., M. A., M. D., Professor of Legal Medicine, Harvard University School of Medicine. Sixth Edition. Cloth. Pp. 654, with 169 illustrations. Price, \$7.00. Boston: Little, Brown & Company, 1939.

**A Handbook of Elementary Psychobiology and Psychiatry.** By Edward G. Billings, B. S., M. D., M. D. Cum Laude (Indiana), Assistant Professor of Psychiatry, University of Colorado School of Medicine; Director, The Psychiatric Liaison Department of the Colorado General and

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**Psychopathic Hospitals; Psychiatric Consultant to the Child Research Council, Denver; U. S. P. H. Psychiatric Consultant to the Federal District Court of Denver.** Cloth. Pp. 271. Price, \$2.00. New York: The Macmillan Company.

**Treatment in General Practice.** The Management of Some Major Medical Disorders. In two volumes. Cloth. Pp. Vo. I, 259; Volume II, 435. Price, \$7.50. Boston: Little, Brown & Company, 1939.

**Eye, Ear, Nose and Throat Manual for Nurses.** By Roy H. Parkinson, M. D., F. A. C. S., Head Oculist and Aurist to St. Joseph's Hospital, San Francisco, California. Fourth Edition. Cloth. Pp. 243, illustrated. Price, \$2.25. St. Louis: The C. V. Mosby Company, 1939.

**Principles of Chemistry.** An Introductory Textbook of Inorganic and Physiological Chemistry for Nurses and Students of Home Economics and Applied Chemistry. With Laboratory Experiments. By Joseph H. Roe, Ph. D., Professor of Biochemistry, School of Medicine, George Washington University; Formerly Instructor in Chemistry, Central School of Nursing, Washington, D. C. Fifth Edition. Cloth. Pp. 503, illustrated. Price, \$3.00. St. Louis: The C. V. Mosby Company, 1939.

**Microbiology and Pathology.** By Charles F. Carter, B. S., M. D.; Director, Carter's Clinical Laboratory, Dallas, Texas; Consulting Pathologist, St. Louis Southwestern Railway Hospital, Texarkana, Arkansas; Consulting Pathologist, Mother Frances Hospital, Tyler, Texas; Formerly Director of Laboratories, Parkland Hospital, Dallas, Texas, and Lecturer in Bacteriology and Pathology, Parkland Hospital School of Nursing. Cloth. Pp. 755, with 165 text illustrations and 25 color plates. Second Edition. Price, \$3.25. St. Louis: The C. V. Mosby Company, 1939.

**Diseases of the Skin.** By Richard L. Sutton, M. D., Sc. D., LL. D., F. R. S. (Edinburgh), Professor of Dermatology,

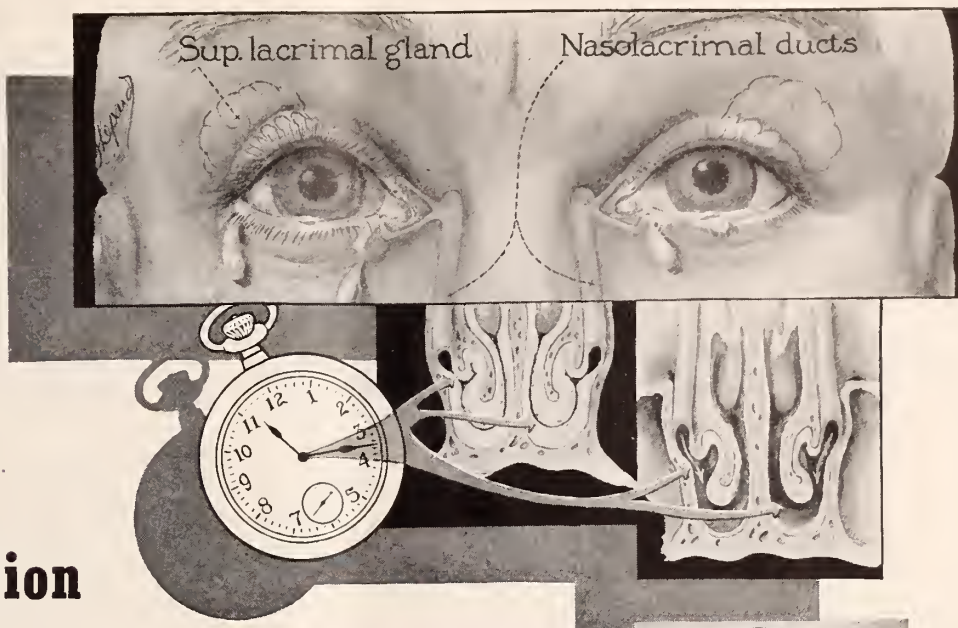
University of Kansas, School of Medicine; and Richard L. Sutton, Jr., A. M., M. D., L. R. C. P. (Edinburgh), Associate in Dermatology, University of Kansas, School of Medicine. Cloth. Pp. 1549, with 1,452 text illustrations and 24 color plates. Tenth Edition, Revised, Enlarged and Reset. Price, \$15. St. Louis: The C. V. Mosby Company, 1939.

**Maternal Care and Some Complications.** The Principles of Antepartum, Intrapartum, and Postpartum Care and of the Management of Some Serious Complications. Approved by The American Committee on Maternal Welfare, Inc. F. L. Adair, M. D., Editor. Cloth. Pp. 194. Price, \$1.50. Chicago: The University of Chicago Press, 1939.

**Essentials of Fevers.** By Gerald E. Breen, M. D., Ch. B. (N. U. I. Dublin), D. P. H., D. O. M. S. (R. C. P. London, R. C. S. England); Senior Assistant Medical Officer, the Brook Hospital, London; Late Senior Assistant Medical Officer, the North-Eastern Hospital, The Southeastern Hospital, and the Northern Hospital (L. C. C. Infectious Hospitals Service); Examiner in Fevers to the General Nursing Council of England and Wales. Cloth. Pp. 274. Price, \$3.00. Baltimore: The Williams & Wilkins Company, 1939.

**Sclerosing Therapy.** The Injection Treatment of Hernia, Hydrocele, Varicose Veins and Hemorrhoids. Edited by Frank C. Yeomans, M. D., F. A. C. S., M. R. S. M. (London, Hon.), Professor of Proctology and Attending Surgeon, New York Polyclinic Medical School and Hospital; Fellow and Past President, American Proctologic Society; Consulting Surgeon, New York City Cancer Institute; Associate Surgeon, the New York Hospital. Cloth. Pp. 337, with 185 illustrations on 117 figures. Price, \$6.00. Baltimore: The Williams & Wilkins Company, 1939.

**Office Gynecology.** By J. P. Greenhill, B. S., M. D., F. A. C. S., Professor of Obstetrics and Gynecology, Loyola University Medical School, Chicago; Professor of Gynecology, Cook County Graduate School of Medicine; Attending Gynecologist, Cook County Hospital; Editor of "Gynecology" in the Year Book of Obstetrics and Gynecology. Cloth. Pp. 406, illustrated. Price, \$3.00. Chicago: The Year Book Publishers, Inc., 1939.



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Proetz<sup>1</sup>, for example, believes that the establishment of ventilation and drainage is of considerable importance in the treatment of nasal sinus infection.

Parkinson<sup>2</sup> states that "The purpose of local treatment during acute infection is ventilation in order to improve drainage. Shrinkage of the nasal mucosa opens the meatuses and the sinal ostiums."

As an aid to prevention of sinus infection, particularly in children, Osincup<sup>3</sup> says: "Maintenance of a free flow of air through the nose and nasopharynx, complete drainage of the sinuses, particularly during infection of the upper respiratory tract, will prove of the utmost value."

Houser<sup>4</sup> states: "The primary principle to be followed in all cases is to establish ventilation, and by so doing secure drainage of the infected sinuses."

To shrink the intranasal tissues and thereby promote ventilation in colds, sinusitis and rhinitis, call to your assistance the valuable vasoconstrictor—

## NEO-SYNEPHRIN HYDROCHLORIDE

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1. Proetz, Arthur: Am. J. Surg., Oct., 1938.
2. Parkinson, Sidney N.: J. A. M. A., Jan. 21, 1939.
3. Osincup, G. S.: South. M. J., June, 1933.
4. Houser, Karl Musser: Pennsylvania M. J., May, 1938.



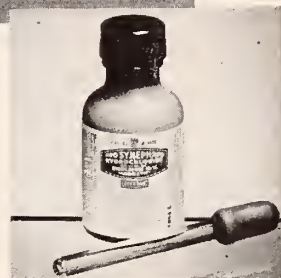
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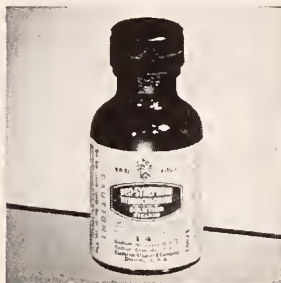
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## BOOK REVIEWS

**Trauma and Internal Disease.** A Basis for Medical and Legal Evaluation of the Etiology, Pathology, Clinical Processes, Following Injury. By Frank W. Spicer, A. B., M. D., F. A. C. P. Cloth. Pp. 593, with 43 illustrations. Price, \$7. Philadelphia: J. B. Lippincott Company, 1939.

The book differs from standard books on trauma in that it includes only a discussion of fractures, open wounds, and traumatic surgery, or occupational diseases to the extent that they may pertain to posttraumatic disease.

The book presents a careful study, arranged according to region, structure, organ and disease, of the rôle of trauma as an etiologic factor in the causation of disease of viscera and bodily structures, and a discussion, with case reports, of the etiology, pathology, clinical process and end-results of serious or apparently trivial injuries, together with their early or tardy manifestations and effects upon a healthy organ or structure, and also upon organs or structures that present evidence of preëxisting disease.

A most complete list of references to special articles from the literature concludes each discussion.—Joseph J. O'Hara, San Diego.

**Cardiovascular Disease in General Practice.** By Terence East, M. A., D. M. Oxon., F. R. C. P., London, Physician and Physician-in-Charge of Cardiological Department, King's College Hospital; Physician Woolwich War Memorial Hospital; Sometime Examiner in Pathology, Conjoint Board; and Radcliff Traveling Fellow, Oxford University. Cloth. Pp. 206, with 43 illustrations. Price, \$3.50. Philadelphia: P. Blakiston's Son & Co., Inc., 1939.

This book is devoted to the clinical consideration of diseases of the heart. It enters into no routine discussion of anatomy, physiology or laboratory procedures. Stress is laid upon therapy based upon clinical observation and physical examination largely made by the use of a careful history, the presenting symptoms and simple, inexpensive instruments such as even the least financially competent or isolated doctor can command. Starting with the basic statement that "It is the efficiency with which the flow of blood is maintained by the heart that matters" and that "The effect of a lesion upon the efficiency of the heart and circulation should have first consideration," he outlines a systematic examination which if carefully followed overlooks nothing and pays particular attention to any sign of circulatory failure. Therapeutic handling of these conditions is briefly, concisely and practically outlined and in the main conforms to modern methods of treatment. The book and its teachings are to be commended.—W. W. Roblee.

**Baptism of the Infant and the Fetus: An Outline for the Use of Doctors and Nurses.** By the Rev. J. R. Bowen, Chaplain, St. Joseph Mercy Hospital, Dubuque, Iowa. Paper. Price, 25 cents. Pp. 12. Dubuque: M. J. Knippel Company, 1925.

This brief outline prescribes methods of baptizing Catholic babies. It is directed to Catholic and non-Catholic physicians and nurses officiating at deliveries with the view of bringing "the privileges of baptism to the little ones, and affording inestimable consolation to the parents," particularly when viability of the newborn is in question. This urgency is discussed under such special headings as conditional baptism, the premature fetus, difficult delivery, baptism in the uterus, when a pregnant mother is dying, when a mother dies in pregnancy, the baptism of monsters, and disposal of the dead fetus. Due respect is paid to medical and moral considerations illustrated in the conditions for performing a cesarean section after the death of the pregnant mother. The pamphlet lends itself to ready reference and should be available in all maternity departments. It is published under official Catholic auspices.

**Diseases of the Ear, Nose, and Throat.** By Francis L. Lederer, B. Sc., M. D., F. A. C. S., Professor and Head of the Department of Laryngology, Rhinology, and Otology, University of Illinois College of Medicine, Chicago; Chief of the Otolaryngological Service, Research and Educational Hospital. Cloth. Pp. 335, illustrated with nearly five hundred halftone and line engravings, mostly original, and sixteen full-page color plates. Philadelphia: F. A. Davis Company, 1938.

Well organized, this book presents the subject in the usual form, clearly. Outstanding are the illustrations, both colored and plain, and they all seem to be up to date. It is refreshing to note the absence of antiquated cuts borrowed from outworn volumes of twenty-five years ago.

No new material seems to have been added to much that has been written before. The use of the audiometer is

passed over in a most cursory manner, and the older methods of hearing tests are still clung to. This is to a certain extent a laudable feature in view of the rapid rate with which we are being crowded into clinical confusion by many of our audiometer research workers. Allergy is also treated most superficially when we consider the progress made in the last ten years.

The author is to be commended when he makes the statement, "The physician who believes that when armed with a douche, a spray, snare, and a scalpel, he is prepared to cope with any complaint referable to the nose is certain to meet with disappointment." Apparently he has this thesis in mind throughout the entire book, for he considers surgical technique very briefly. In short, this is a valuable book for the general practitioner who is interested in and may perhaps have to "do" nose and throat work and also a good handbook for the specialist who has other more extensive volumes to resort to.—W. H. Geistweit, Jr.

**Diseases of the Nose and Throat.** By Charles J. Imperator, M. D., F. A. C. S., Professor of Otolaryngology, New York Polyclinic Medical School and Hospital; Formerly Professor of Clinical Otolaryngology, New York Postgraduate Medical School, Columbia University, New York; Consulting Laryngologist to Nyack General Hospital and Harlem Hospital, New York; Consulting Bronchoscopist to Manhattan Eye, Ear, and Throat Hospital, Fifth Avenue and Flower Hospital and Riker's Island Hospital, New York, and Herman J. Burman, M. D., F. A. C. S., Adjunct Professor of Otolaryngology, New York Polyclinic Medical School and Hospital; Formerly Assistant Professor of Clinical Otolaryngology, New York Postgraduate Medical School, Columbia University, New York; Director of the Department of Otolaryngology, Harlem Hospital, New York; Consulting Bronchoscopist to Broad Street Hospital and Pan-American Clinics, New York. Second Edition. Revised. Cloth. Pp. 726, with 480 illustrations. Philadelphia: J. B. Lippincott Company, 1939.

This excellent book's particular value lies in its organization. The material is handled with rigid adherence to systematic presentation. Following an adequate anatomical description, the diseases are discussed under the headings: Symptoms, Diagnosis, Treatment, Pathology, and Prognosis. This form and the outline which heads each chapter permit quick access to desired information.

The photographs and illustrations are plentiful and well chosen. The chapter on Plastic Repair of Deformities of the Nose could be improved with more diagrams. Although insufficient attention to chemotherapy has been shown, the treatment of affections of the nose and pharynx is better than average, while the sections on the larynx and oesophagus are exceptional. Controversial material has been eliminated and the book is concise and well edited. While not a typical student's text nor of an encyclopedic nature, it will be helpful to the practicing otolaryngologist.—Ray Allison.

**Gregg Medical Dictation Series.** By Marie Zweegman Yates. Volume 1, General Medicine. Paper. Pp. 90. Price, \$1.00. Volume 2, Surgery. Paper. Pp. 88. Price, \$1.00. Volume 3, Pediatrics. Paper. Pp. 89. Price, \$1.00. New York: The Gregg Publishing Company, 1939.

The increasing demand for the secretary proficient in taking medical dictation in clinics and hospitals, as well as in the office of the physician, has emphasized the need for an authoritative text on dictation material in the field of medicine.

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Each volume is a complete unit, the object being to acquaint the student with the vocabulary of the subject and to present the easiest means of transposition into shorthand symbols.

To serve this dual purpose, the author has divided each volume into two general sections: (1) case reports, (2) vocabulary and shorthand symbols. Part II is of primary importance to the student, for it will be constantly used during the entire course as a ready reference.

It would appear that the sequential development of the text is especially designed to create an ample vocabulary and to orient the student in the professional office atmosphere.

This text series will not only aid the student, but the teacher of medical dictation will consider it a "must" for her teaching "armamentarium."—Ralph E. Scovel.

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### TWENTY-FIVE YEARS AGO

(Continued from Text Page 288)

*Our Real Work.*—Doubtless many of our members have an idea that publishing the JOURNAL once a month, collecting the accounts and keeping tract of our membership, is about all the work that the office of the State Society does. This is very, very far from the case, and at the request of the President, a brief statement of some of the seldom-heard-of activities of the office are given. In the first place, our confidential records are almost invaluable; probably twenty-five thousand dollars would not suffice to secure the information on file. We have endeavored to find out something about every licensed physician and every quack in the State, and no information is too big or too insignificant to be recorded. In many instances it has been only through our office that identity has been established, fraud uncovered

or injustice corrected. That work in itself is very extensive and laborious and, of necessity, is of the most confidential nature; it is our aim to see that information shall be properly used and not made a weapon. Most of the employers of medical services fill vacancies through our office or come to it for information and we have furnished hundreds of physicians with locations, positions on salaries, and the like; this same sort of work applies, too, to nurses, office attendants, etc., and is very extensive; yet no charge is ever made for this work. The exchange, purchase and sale of locations is also a factor of considerable importance, and we always have a number of such things on record in the office. The one object of the Secretary has been to make the office of the Medical Society of the State of California the one absolutely necessary clearing house or headquarters for all things medical; to make it the one place where accurate information in regard to medical affairs in California can be obtained, and to be of the greatest possible help to physicians in every conceivable way. For years it has been a rigid rule that no request for information shall be turned down: the address of the publisher of a medical journal, the title of a book; where to get a certain thing or where to find out certain information; no letter is ever unanswered and the desired information is secured or

the enquirer told where he can get what he wants to know. As a matter of fact, the publication of the JOURNAL is one of the smallest pieces of work that goes on in the office of the Society.

• • •

*Bubonic Plague in New Orleans.*—As most of us know, what had been looked for for a long time happened in July, and bubonic plague made its appearance in New Orleans in that month. Immediately the Public Health Service was requested to take charge of the situation and the old friends of San Francisco, Dr. Rupert Blue, now Surgeon-General of the Service, and his assistant, Dr. W. C. Rucker, went to work in New Orleans with the same energy and with the knowledge gained from their work with plague in San Francisco. Up to the end of August, there had been noted

(Continued on Page 21)

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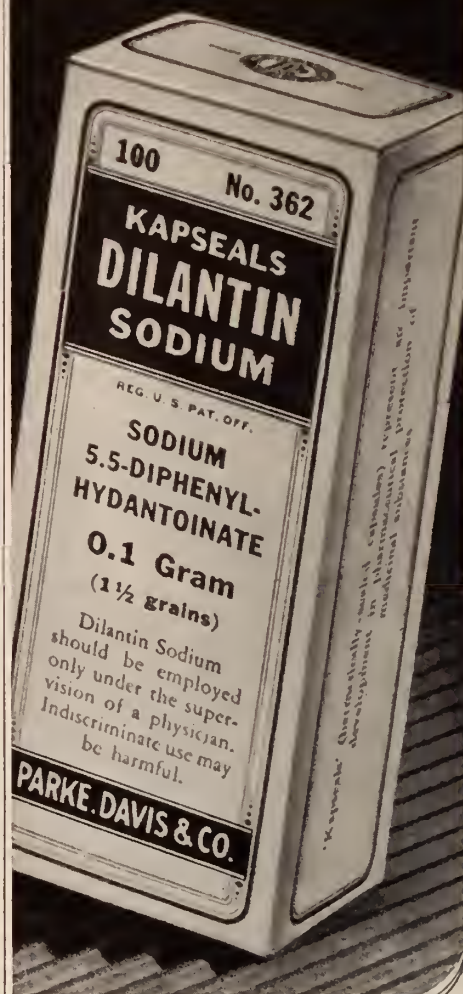


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### TWENTY-FIVE YEARS AGO

(Continued from Page 18)

23 cases of human plague and 82 cases of rat plague; others have occurred since that date. We may, however, have no anxiety as to the outcome, as the Public Health Service has the situation well in hand and the destruction of rats is enormous.

1 1 1

*American Medical Meeting.*—Whatever you do, don't forget two things: The Exposition is to open its doors officially on the date originally designated and it is going to be a tremendous success; bigger than we could have expected. And, also, the American Medical Association is going to meet in San Francisco in the third week of June, 1915—June 22 is the beginning of the week. Remember it and make your plans early so that you may attend this meeting. It is not very often that you will have the opportunity of attending a meeting of so many of the big ones of the land with so little effort of time and energy and of expense as will be the case next year; and it will do you a lot of good to meet them and to hear what they have to say.

tion. By this means, and this means alone, can we obtain satisfactory results and avoid serious errors. The x-ray is not to be looked to as an infallible means of diagnosing gastric or duodenal ulcers. It is merely a procedure which, when properly applied and the results properly interpreted, is a most valuable addition to our other methods of examination and furnishes information unobtainable by other procedures. . . .

*From an Original Article on "Medical Management of Duodenal Ulcer," by L. G. Visscher, M. D., Los Angeles.*—Notwithstanding the inspiring revelations which come to us from the physiological laboratories, from the dark-rooms of our radiologists and from the surgical clinics, is the interpretation of an ulcer's conduct often a very baffling thing. Long ago have I learned to correct, amplify, change or reverse my diagnosis, while managing its treatment; and of equal importance with the findings at the outset of our observation must we look upon the manifold therapeutic reactions as they emerge during a so-called ulcer-management. It should be intimately interwoven with differential diagnostic considerations. . . .

*From an Original Article on "Radiologic Diagnosis of Gastro-Duodenal Ulcers," by W. W. Boardman, M. D., San Francisco.*—Gastric and duodenal ulcers produce functional and organic changes in the gastro-intestinal tract. Proper radiologic examination will graphically demonstrate certain of these functional and organic changes. In some, these demonstrated changes are so typical that a diagnosis of gastric or duodenal ulcer may be made on these findings alone; in others, this evidence is merely suggestive. In all cases, the radiologic evidence must be carefully correlated with the findings obtained by the other methods of examina-

*From an Original Article on "Gastroduodenal Ulcer: Symptomatology and Diagnosis," by Emil Schmoll, M. D., San Francisco.*—The therapeutic results of surgical intervention in affections of the stomach, the frequent opportunity we now have to control our clinical findings autopsically, have led to a complete revision of even recent teachings on gastric and duodenal ulcerations. The French clinician Soupoult was the first one to consider pain occurring three or four hours after feeding combined with the periodicity of symptoms as characteristic for ulceration in-

(Continued on Next Page)



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## TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

volving the pylorus; in 23 cases operated on by Hartman he was able to prove his contention: In all cases ulcer, either involving the pylorus or located just above or below the pylorus, was found. . . .

*From an Original Article on "Novocain Poisoning," by R. B. Giffen, D.D.S., and F. F. Gundrum, M.D., Sacramento.*—For some thirty or forty years after the introduction of general anesthesia, local anesthetics were unknown to the medical and dental professions. In about 1875, however, the powerful effect of cocain in producing analgesia after application to a special portion of the body became known, and this drug began to be widely used for minor surgical and for dental operations, where general anesthesia was unnecessary or inadvisable. It was soon found, however, that this drug was far from ideal because of the not infrequent instances of alarming poisoning and occasional deaths following its use. Pharmacologists, therefore, exerted themselves to produce some modification of or substitute for cocain which would have the anesthetic properties without its toxicity. A host of such local anesthetics have appeared upon the field: stovain, eucain, beta-eucain, alypin, novocain, quinin, and urea hydrochlorid and others. . . .

*From an Original Article on "The Induction of Anesthesia and Ethyl Chloride," by Carleton Dederer, M.D., Los Angeles.*—The induction of anesthesia is far more important than its subsequent continuance. One of the leading investigators in the field of anesthesia, George W. Crile, M.D., of Cleveland, has not only laid great stress on the avoidance of fear before operations, but has shown chemi-

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cally the effect of fear on the central nervous system. He says: "In rabbits subjected to the emotional stimulus of fear alone the brain-cells showed precisely the same change as those which resulted from physical injury, namely, an immediate stage of hyperchromatism and a later stage chromatolysis; a disturbance of the nucleoplasmic relation and a final disintegration of many cells." . . .

*From an Original Article on "Shockless Surgery," by A. B. Cooke, M.D., Los Angeles.*—For many years it has been conceded that the greatest danger of modern surgery consisted in the ever-present possibility of surgical shock. With the epoch-marking discoveries of anesthesia and, later, of antisepsis, the chief obstacles disappeared. But it was recognized that there still remained a danger, insidious and menacing, which all too often thwarted the efforts of the most painstaking and skillful operators. To overcome this danger one authority taught that speed in operating was the remedy, another that perfect hemostasis was the great desideratum. And still there constantly occurred and are occurring cases in which life is jeopardized, indeed often sacrificed, by the advent of conditions which seem to mock the precautions of the most brilliant clinicians. . . .

*From an Original Article on "The Nursing Situation Since the Passage of the Law," by Gertrude S. Courtright.* In approaching the discussion of a subject upon which such divergent views have been expressed, and which has been a basis for acrimonious private debate as well as legal argument, the task of treating the topic of this paper, in other than a partisan manner, is almost impossible. Naturally I will be charged with partisanship, irrespective of any observations that I may record, because of my personal efforts in

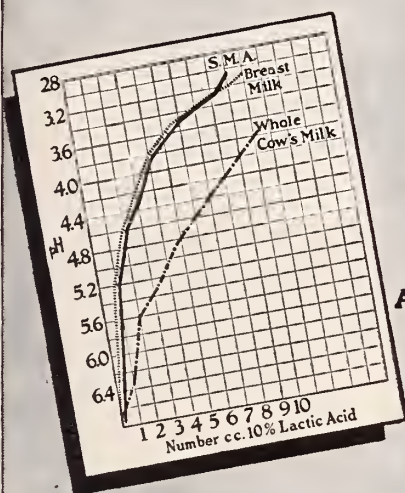
(Continued on Page 24)

# Why

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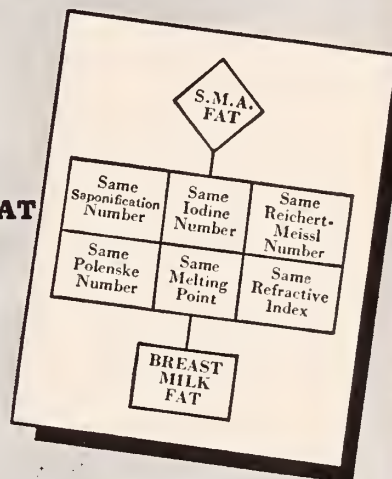
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PROTEIN.....	1.3-1.4%	1.23-1.5
CARBOHYDRATE.....	7.3-7.5%	7.57
ASH.....	0.25-0.30%	0.215-0.226
pH.....	6.8-7.0	6.97
Δ.....	0.56-0.61	0.56
ELECTRICAL CONDUCTIVITY.....	0.0022-0.0024	0.0023
SPECIFIC GRAVITY.....	1.032	1.032
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—PER 100 C. C.....	68.0	68.0
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## TWENTY-FIVE YEARS AGO

(Continued from Page 22)

connection with this particular legislation, no matter how accurate those observations may be—no matter how unaffected I may now be, personally, by the results that will follow, "as the night the day," upon the operation of this enactment of our legislature. Assuming that such an accusation of partisanship must therefore follow any article prepared by me—willing, nevertheless, under such conditions, to express my deductions—I wish to first make clear, if I can, the legal theory of such a law, and these preliminary statements are but an attempted repetition of information concerning the law applicable to the subject, and hence probably not as entirely correct as a lawyer would give it. . . .

## BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 288)

"Charges of murder in connection with an asserted illegal operation, which had been filed against Dr. J. Carl Cummings of Glendale following the death of Mrs. Margaret E. Simon, 35, of Los Angeles, were dismissed today by Superior Judge Arthur Crum in Los Angeles on motion by Howard Hinshaw, deputy district attorney. The motion for dismissal stated that evidence was insufficient to prove that Doctor Cummings performed an illegal operation on Mrs. Simon, resulting in her death. . . . Investigators from the District Attorney's office and medical examiners found no evidence that Doctor Cummings had done more than give Mrs. Simon treatments after someone else had performed an illegal operation, the Deputy District Attorney stated in making the motion for dismissal of charges." (Glendale News-Press, August 24, 1939.)

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"Arrest was made yesterday of William Henry Neher, 2211 Fifth Street, by Chief of Police Loren R. Shoemaker, on a complaint filed by S. W. Brooks, State Board of Medical Examiners, according to reports of the La Verne Police Department. Neher was charged in the complaint with violation of Section 2141 of the Business and Professions Code. . . ." (La Verne Leader, August 18, 1939.)

"Seven doctors have been approved as members of the newly organized examining board by Jerry Giesler, chairman of the State Athletic Commission, it was announced today by Bill Smith, State Boxing Inspector. The new appointees are Drs. Francisco Brovo, Benjamin Blank, Jass Edward Wolfson, Joe Zeiler, Chester Gummess, Emmery L. Robinson and Warner R. Wright. . . ." (Los Angeles Herald and Express, August 24, 1939.)

"Mary I. Billet, 3991 Tenth Street, religious psychoanalyst, Tuesday was free on her own recognizance after she pleaded guilty in Justice Court to charges of practicing medicine without proper credentials and advertising herself as a doctor. . . . According to S. W. Brooks, assistant special agent for the State Board of Medical Examiners, the woman had advertised herself as 'Dr. Mary I. Billett' and had practiced medicine for the past seven years. Brooks, who filed the charges, began his investigations when a woman, who claimed to have been treated by the defendant, was brought to the County Hospital recently. . . ." (Riverside Enterprise, August 16, 1939.)

"Reginald L. Rankin has served almost three out of ten years for assertedly conducting a chain of abortion clinics in key Pacific Coast cities. His application for pardon or

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commutation of sentence was postponed. Attorney-General Warren termed the clinic set-up 'the biggest racket ever presented on this coast.' The board chairman, Lieutenant-Governor Ellis E. Patterson, expressed keen interest in the case and announced he will consider it again personally. 'I want to know why twenty other persons named in the case were let go free, and why Rankin was the sole one to go to prison,' Patterson said. 'There are two sides to a case, but I want to see if there was something wrong with the courts.' (San Francisco *Examiner*, August 30, 1939.) (Previous entries, July, September, December, 1936; June, December, 1937; January, 1938.)

"New troubles gathered for Dr. Nathan S. Housman yesterday, as the physician who figured prominently in the Frank Egan murder case surrendered to the police on two warrants charging violation of the State poison laws. As the doctor was being booked for alleged failure to keep records in connection with heavy dosages of narcotics he prescribed for two of his patients, the State Board of Medical Examiners stepped into the case. Thomas Hunter, special agent for the Board, announced he had accumulated certain evidence as the result of recent investigations, and that he was submitting this evidence to the office of the Attorney-General. 'The State Board merely wants an opinion as to whether the evidence is sufficient to warrant proceedings against Doctor Housman,' Hunter said. Such proceedings, if undertaken, would be directed toward revocation of Doctor Housman's license to practice medicine in California. The State Medical Board, as well as the State Division of Narcotic Enforcement, which accused Doctor Housman of violating the poison laws, were among the 'proper authorities' which a recent coroner's jury requested to make a careful investigation of Doctor Housman's conduct in the case of Mrs. Alma Elizabeth Black, a patient

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he treated for seventeen years for an ailment which an autopsy—performed at his own demand—failed to detect. . . 'Doctor Housman, despite these charges, did keep records of every narcotic prescription—the prescription, itself, is the record. Officials have lost sight of the main issue, and are trying to harass my client.' Despite Taaffe's assertion, Paul Madden, Chief of the Narcotics Division, asserted that all physicians are required to keep records of narcotics prescriptions, and to report to the Division the name of every patient for whom they start prescribing narcotics. 'At one pharmacy on Eddy Street,' Madden said, 'our agents found 345 prescriptions made out by Doctor Housman for more than 200 different patients. A check of our records disclosed that only four of these had been made known to our office. That is an intolerable situation.' . . . District Attorney Matthew Brady announced that he had assigned his assistant, John J. McMahon, as prosecutor of the two charges against Doctor Housman. The case is scheduled for today, but it is believed a postponement will be asked.' (San Francisco *Examiner*, September 1, 1939.) (Previous entries, November, December, 1932; July, 1933; January, 1937; September and November, 1938.)

"Claiming 'reducing' capsules not only increased her weight 23 pounds to 146, but put her to bed for nine months, Grace Gregory was in court today trying to collect \$15,000 damages. The defendant manufacturers, Jean Farrell, Inc., and Beulah Yokley, offered in evidence testimonials from other capsule takers." (Associated Press Dispatch, dated Los Angeles, August 8, published Long Beach *Press-Telegram*, August 8, 1939.)

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(Continued on Next Page)



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### BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

health insurance system set up by the California Medical Association, will be put into effect 'at once,' officials announced yesterday. The announcement followed revelations that the California State Employees' Association has decided to insure its 19,000 members with the Service and will sign a contract on Monday. . . . Although State employees are under no compulsion to subscribe to the service, their association's official publication is urging them to sign up and is carrying application blanks for their use. . . . (San Francisco *Examiner*, August 12, 1939.)

"Dr. J. F. Fiske, chiropractor of Montebello, was arraigned in Whittier Township Justice Court yesterday on a charge of practicing medicine without a license. He pleaded not guilty and a hearing will be held on September 26 at 2 p. m. Doctor Fiske is charged with giving medical treatment to a child, named John Beck, of Keith Drive. . . ." (Whittier *News*, August 29, 1939.)

"Attorney-General Earl Warren ruled today, 'the residence of a foreign consul is not considered extraterritorial, and a subpoena in a criminal case may be served upon a foreign citizen in a consulate.' The opinion was asked by the State Board of Medical Examiners in regard to a witness whose testimony was desired in a criminal case involving alleged fraud, now residing at a foreign consulate here. Warren said 'such exemption as might exist in the official residence of an ambassador or public minister, does not extend to the residence of a foreign consul.' He advised subpoena service in a 'dignified and proper' manner." (Fresno *Bee and Republican*, September 3, 1939.)

"The resignation of Dr. R. A. Cushman, for the past seven years superintendent of the Mendocino State Hospital at Talmadge, is being tendered, effective October 1, it was announced yesterday. Doctor Cushman, who is 83 years of age and one of the oldest physicians in California, will retire to live at Cloverdale after fifty-six years of active professional life. Meanwhile, it was learned that Dr. Walter A. Rapaport, a one-time medical assistant at the institution and now on the staff of the State Hospital at Napa, is slated to step into Doctor Cushman's position." (San Francisco *Examiner*, September 5, 1939.)

"Found guilty on misdemeanor drunk-driving charges by a jury in Municipal Judge Byron J. Walters' court yesterday, Dr. Henry A. Conway, 45-year-old physician, was ordered to appear next Tuesday for sentence. Doctor Conway reportedly crashed into the rear of a car driven by Mrs. Louis Greenbaum, wife of an attorney, at Franklin and Western avenues, last August 17. The doctor assertedly sped from the scene of the accident when he saw police approaching and was chased for five blocks before officers could apprehend him, they testified." (Los Angeles *Times*, September 1, 1939.) No record of such an individual appears in the 1938 American Medical Association directory; however, the records of the Board of Medical Examiners show that an individual named Henry A. Conway, graduate of the College of Physicians and Surgeons, San Francisco, 1918, failed in the written examination, March, 1919, and July, 1929.

"W. E. Thanning, 75, yesterday was arraigned in police court on a charge of practicing medicine without a state license, and was released under \$500 bail with time for pleading set over to next Monday. . . . Thanning was ar-

rested on a complaint signed by Sterling W. Brooks, Special Agent of the State Board of Medical Examiners, who charged him with three counts on violation of the state professional code." (Santa Monica *Outlook*, August 26, 1939.)

"Elmer W. Steele of Fresno, a seller of medical compounds at the State Fair, today pleaded not guilty to a charge of misrepresenting himself as a physician to the fair audiences. Steele was arrested Saturday by Joseph Williams, an inspector of the State Board of Medical Examiners. He said Steele had signs and bottle labels referring to himself as Doc Steele. Justice of the Peace Percy G. West set October 4 as the date of Steele's trial." (Sacramento *Bee*, September 7, 1939.)

"Mrs. Carlotta Munquia of 159 North Avenue 23, yesterday was ordered held without bail, pending preliminary hearing on August 30, on charges of having performed an illegal operation which caused the death of Mrs. Martha Louise Dewey, 21, on August 18. . . ." (Los Angeles *Herald and Express*, August 25, 1939.)

"Dr. Walter E. Soper, Turlock chiropractor, was arrested Saturday afternoon in his office on North Center Street on a charge of practicing medicine without a license, a misdemeanor. Arrest was made by Thomas P. Hunter, San Francisco representative of the State Board of Medical Examiners. . . . Hunter obtained a search warrant and confiscated a quantity of medicines and various medical instruments. Soper's arrest was a result of his administering medicine to Mrs. Guadalupi Esperanza, 36, for a chest ailment, the complaint charges. Mrs. Esperanza, wife of a ranch hand, was admitted to Lillian Collins Hospital here August 22. Doctors are attempting to check pneumonia." (Press dispatch, dated Turlock, August 28, printed in the Stockton *Record*, October 28, 1939.)

"Dr. William E. Shattuc, 44, the 'millionaire sportsman,' yesterday voluntarily entered a sanitarium for ninety days for observation to determine whether he is mentally competent to handle his own fortune. Doctor Shattuc, father of six children, agreed to enter a sanitarium after a conference of attorneys before Superior Judge Raymond McIntosh, in which Mrs. Norma B. Shattuc sought to be appointed her husband's guardian to handle the income from his \$150,000 trust fund inheritance. During the hearing, a psychiatrist testified it would be impossible to determine if Doctor Shattuc is mentally incompetent, as the wife charged, until the physician had been observed daily for at least three months. . . ." (Los Angeles *Daily News*, August 30, 1939.)

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## SUGGESTED LOCAL MEDICAL RELIEF PROGRAM

(Continued from Text Page 282)

SUGGESTED MEDICAL RELIEF PROGRAM FOR \_\_\_\_\_ COUNTY  
 (OR CITY OF \_\_\_\_\_), PRESENTED BY THE \_\_\_\_\_  
 COUNTY MEDICAL SOCIETY

Realizing that medical care is a necessary and important part of poor relief and that there is a need for the establishment of a coordinated and efficient local program to provide medical services for the needy and temporarily unemployed who are entitled to assistance at public expense under existing laws, the \_\_\_\_\_ County Medical Society offers its cooperation and assistance to the Poor Relief Authority of \_\_\_\_\_ County (or City of \_\_\_\_\_).

To assist relief authorities in forming a sound and practical medical relief program in \_\_\_\_\_ County (or City of \_\_\_\_\_), the \_\_\_\_\_ County Medical Society presents the following recommendations as basic principles and policies for such program:

1. Persons entitled to receive medical care through this suggested medical program shall be those eligible for poor relief in accordance with the provisions of House Bill 675, enacted by the Ninety-Third Ohio General Assembly.

2. A person listed by the local Relief Authority as eligible to receive medical care at public expense shall have the right to select his own physician from among the licensed practitioners of \_\_\_\_\_ County who are willing to participate in this program, but expression of a willingness to participate shall not obligate a physician to accept any relief recipient as a patient.

3. Services rendered by participating physicians shall consist of home and office visits and medical and surgical services in a hospital, excepting services rendered by interns, residents or other salaried employees of a hospital.

4. The following fees shall be paid the attending physician or surgeon by the local Relief Administration from funds appropriated and distributed for poor relief:

*Office call*, including ordinary medication and supplies, \$\_\_\_\_\_.

*House call*, including ordinary medication and supplies if made within \_\_\_\_\_ mile radius of physician's office, \$\_\_\_\_\_.

*Mileage*: \_\_\_\_\_ cents a mile, one way and not including first mile, shall be added to the fee for house call more than one mile from physician's office, with a maximum mileage allowance of \$\_\_\_\_\_ for the first fifteen miles. Mileage after the first fifteen miles one way shall be at the rate of \_\_\_\_\_ cents per mile one way.

*Emergency house call* between 9 p. m. and 7 a. m., regular fee plus 50 cents.

*Obstetrical*: Normal delivery, \$\_\_\_\_\_. Complicated delivery, \$\_\_\_\_\_. Mileage allowance, except in complicated cases, limited to two trips, regular mileage rates. Prenatal visits, limited to \_\_\_\_\_, same as office call—regular mileage rates.

*Surgical and Special Services*: (To be established by agreement and itemized), or (shall be paid for in accordance with Workmen's Compensation Fee Schedule or at a percentage of such fee schedule.)

(Note: It should be understood that each county medical society should feel free to set up a schedule for fees and mileage different from the one suggested above, if it is believed different schedules would be more practical in that particular county. The above schedules merely are presented as a working basis subject to amendment by a local medical society in the light of local conditions.)

5. Fee bills in accordance with the above schedule shall be submitted monthly by attending physicians to the local

(Continued on Page 30)

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<sup>1</sup> Lewis, J. M., American Journal of Diseases of Children, February, 1936. Park, E. A., Journal of the American Medical Association, Vol. 111: 1179, September 24, 1938.

<sup>2</sup> Journal of the American Medical Association, Vol. 111:156, July 9, 1938. Jeans, P. C. and Stearns, Genevieve, Journal of the American Medical Association, Vol. 111: 703, August 20, 1938.

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\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of \$——, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the —— Gift, the following described real property situate in the County of ——, State of California, and more particularly described as follows, to wit:

\* \* \*

#### FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

\* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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### SUGGESTED LOCAL MEDICAL RELIEF PROGRAM

(Continued from Page 28)

Relief Authority and shall be paid as promptly as possible by such authority.

6. The local Relief Authority shall not be obligated to pay a physician for services rendered a relief client unless the attending physician shall notify the local Relief Authority, or a duly authorized agent of such Authority, within forty-eight hours after services are begun, that he is attending such relief client. For the sake of efficiency and convenience the local Relief Authority shall make available to the physicians of the county a list of duly authorized agents to whom such notification may be sent. Arrangements for major surgery, except in emergencies, and for special and prolonged treatments, shall be made through conferences between the local Relief Authority, the attending physician, and the relief client (or his or her proper representative). Close coöperation should be maintained between the local Relief Authority and the Medical Advisory Committee. The local Relief Authority should seek the advice of the Medical Advisory Committee on all medical questions, especially requests to perform major surgery or to render special treatments over an extended period. It should be realized that the attending physician is the most competent judge regarding the medical needs of a relief client and that he should be given reasonable jurisdiction in the matter of providing the client with the type of services necessary for the recovery of such client. Disputed cases, if any, should be referred to the Medical Advisory Committee for adjudication.

7. The local Relief Authority shall create a Medical Advisory Committee, consisting of —— physicians recommended by the —— County Medical Society. Such com-



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*For particulars address:*

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mittee shall assist the local Relief Authority in supervising the medical relief program. More specifically, it shall act as adviser on requests for major surgery or for special prolonged treatments; assist in the auditing of fee bills submitted by participating physicians; coöperate in the preparation of any forms and blanks used in administration of the medical program; and act as a liaison between the relief authority and the medical profession of the county.

8. The local Relief Administration should discourage relief clients when in need of medical care to visit physicians in their offices, if possible, thus minimizing home visits and travel on the part of physicians and medical costs. In turn, participating physicians should keep in mind that funds for poor relief are limited and should assist in keeping the medical program on an emergency-necessity basis.

9. Each participating physician shall have the right at any time to request that his name be removed from any list of participating physicians which may be in possession of the local Relief Administration or recipients of poor relief.

10. It shall be understood that the medical program herein recommended is an emergency, temporary arrangement, subject to periodic revision at the request of the local Relief Administration or the ——— County Medical Society to meet new and unforeseen conditions and situations.

11. The ——— County Medical Society presents the foregoing recommendations for the consideration of the local Relief Authority of ——— County (or City of ———), with the hope that they will be approved so that a medical relief program based on the principles and procedures enumerated can be inaugurated at once to provide the need of ——— County (or City of ———) with necessary medical care.

## SAN DIEGO COUNTY HOSPITAL: RULES OF ADMISSION

(Continued from Text Page 282)

### b. Acceptance for high-cost illness:

Semi-indigency includes such persons as have a small margin above the necessities of life sufficient to pay for some types of illnesses and insufficient for others. If the patient is unable to meet the lowest price set by the private hospitals in the community and their own physician, then for that particular illness he will be considered indigent and will have free medical care.

### c. Ownership of property, personal or real:

Ownership of property does not necessarily bar the patient from receiving free medical care even though borrowing on the property would release money for medical care. Factors which must be weighed include: Family obligations; probable length of incapacity as a result of illness; cost of type of treatment needed; standard of living of family; amount of indebtedness which family can assume without becoming hopelessly involved; and the chances of the patient recovering and again being self-supporting. Recommendation in each case to be made by a trained social worker, and the facilities of the property department to be available.

### d. Life insurance:

In determining eligibility no account shall be taken of a policy or policies of life insurance which has or have been in effect at least five years prior to the date of application, if the cash value of the policy or policies at maturity is in an amount not exceeding \$1,000.

(Continued in Back Advertising Section, on Page 34)



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# CALIFORNIA AND WESTERN MEDICINE

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*Leaflet Regarding Rules of Publication.*—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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## EDITORIALS†

### CHIROPRACTIC INITIATIVE OF NOVEMBER 7, 1939 (PROPOSITION NO. 2)

**Osteopathic and Chiropractic Acts of 1922.**—The Chiropractic Act now on the California statute books was enacted by initiative vote of the citizenry in November, 1922, and at that same election the Osteopathic Act now in force was likewise brought into being. As a result, up to the present year 3,655 chiropractors have been licensed to pursue their mode of practice in California—a figure more than twice that of the number of osteopathic licentiates, since only 1,795 osteopaths have been licensed to practice.

It is estimated that three-fourths of all osteopathic licentiates have certificates as osteopathic physicians and surgeons, with legal recognition and rights practically equivalent to those enjoyed by doctors of medicine who have received their degrees from medical schools demanding a much greater amount of preliminary education and a more exacting professional training.

\* \* \*

**Lower Standards of Professional Training.**—At the time the members of the chiropractic group sought initial recognition from the State, it was one of their contentions that their licentiates would not need the higher requirements of training in vogue in nonsectarian medical schools, because they intended to use their limited therapeutic methods on a much less number of diseases. Many laymen accept such an argument as reasonable, because so few persons appreciate that the importance of scientific healing art practice revolves primarily around accuracy in diagnosis rather than on therapeutic methods and agents.

In their original pleas, too, for legal recognition, cultists have nearly always affirmed that their much lower educational and professional training requirements were quite sufficient to permit healing art work in the limited group of diseases to which they intended to confine themselves. However, when once firmly established by law, within a comparatively short time they usually seek to break down the limitations concerning their scope of practice. A good example of this attitude is the

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.



proposed chiropractic initiative that will have a place on the November 7 ballot.

\* \* \*

**Other Evidence.**—Chittenden Turner, in his book entitled "The Rise of Chiropractic," a volume that came off the press in 1931, states that:

In 1908, there were probably less than ten chiropractors in the State (California).

This volume also contains the interesting declaration:

In 1925, three years after the passage of the Chiropractic Act, there were reported to be approximately 700 more chiropractors than osteopaths in California. In these three years, 1,142 licenses were issued to chiropractors, while in twenty-five years 1,160 osteopathic licenses were issued.

This is ample evidence that the chiropractors, with the aid of the low standards of preliminary and other education, moved rapidly in placing, in California communities and cities, large numbers of graduates. Now, in 1939, it is known that almost 4,000 chiropractors are licensed in California!

\* \* \*

**Proposed Chiropractic Initiative.**—Comes now the initiative endeavor of the present year in which an effort will be made, on November 7, 1939, to secure the enactment of a law that will greatly extend the scope of practice of chiropractic. This time, the proposed law (Proposition No. 2 on the ballot) has been drawn with considerable astuteness, in that many of the additions, omissions, and modifications are either direct extensions of the scope of chiropractic practice or, indirectly, owing to the clever phraseology used in the drafting of the law, can possibly be so construed in later decisions by the courts.

\* \* \*

**Initiative Text Appeared in September Issue.** The text of the proposed initiative appeared on page 211 in the September number of CALIFORNIA AND WESTERN MEDICINE, and is worthy of careful perusal. On page 213 of the same issue will be found the digest of a California Appellate Court decision, in which the scope to chiropractic, under the law of 1922, was quoted in the third paragraph, as follows:

The 1922 chiropractic initiative created a Board of Chiropractic Examiners and provided that a license issued by the Board authorized the holder—

to practice chiropractic in the State of California as taught in chiropractic schools or colleges; and, also, to use all necessary mechanical and hygienic and sanitary measures incident to the care of the body, but shall not authorize the practice of medicine, surgery, osteopathy, dentistry, or optometry, nor the use of any drug or medicine now or hereafter included in materia medica.

Both articles should be studied by all physicians who have pride in their calling, and who would faithfully do their part as citizens in the protection of the public health.

\* \* \*

**Excerpts from the Proposed Chiropractic Law.**—In the proposed law the significance of the following portions are well worth serious thought:

Section 3. Section 4 of said act (existing chiropractic initiative of 1922) is hereby amended to read as follows:

(b) To adopt from time to time such rules and regulations as the Board may deem proper and necessary for the enforcement of this act, copies of such rules and regulations to be filed with the secretary of the Board for public inspection. . . .

(c) To approve every chiropractic school or college which complies with the provisions of this act and the rules and regulations of the Board. Nothing in this act shall prohibit the Board from withdrawing its approval of any chiropractic school or college after such approval has been granted.

(f) To promulgate and adopt rules and regulations for the conduct of chiropractic schools and colleges. Each chiropractic school or college, in order to obtain the approval of the Board, shall make application therefor to the Board in writing, and shall furnish such information regarding such school or college as may be required by the Board. Said schools or colleges shall at all reasonable times permit any member of the Board or any representative thereof to enter upon the premises of such school or college and to inspect the facilities and records thereof. . . .

Section 4. Amendments to existing Section 5 as follows:

Sec. 5. It shall be unlawful for any person to practice chiropractic in this state without a license so to do. An applicant for a license hereunder must be not less than twenty-one years of age, of good moral character, and must submit satisfactory proof of graduation from a high school requiring not less than fifteen units for graduation. He must apply to said board at least fifteen days prior to any meeting thereof, upon such form and in such manner as the Board may provide, and the application must be accompanied by a fee of twenty-five dollars.

Except in cases herein otherwise provided for, an applicant for a license to practice chiropractic must be a graduate of a chiropractic school or college approved by said board, which teaches a course of instruction of not less than four thousand hours in the subjects hereinafter enumerated in this section, extended over a period of four school terms of not less than nine months each.

An applicant for a license hereunder must submit satisfactory proof of actual attendance during not less than 90 per cent of the hours herein prescribed.

For the purposes of this act, an academic "hour" shall be construed as a period of not less than fifty minutes. The hours of instruction and the subjects required of an applicant for a license to practice chiropractic, and the minimum of hours and courses to be taught by an approved chiropractic school or college are as follows:

Subject	Hours
Dissection .....	150
Histology .....	100
Anatomy .....	600
Bacteriology .....	100
Chemistry (including fifty hours laboratory) ..	150
Hygiene and sanitation .....	100
Toxicology .....	50
Physiology .....	300
Pathology .....	300
Physical diagnosis and analysis .....	450
Chiropractic theory and practice .....	500
Obstetrics .....	200
Gynecology .....	100
Spinography .....	100
Biology .....	100
Physics .....	100
Dietetics, including endocrinology, biochemistry and food chemistry .....	300
Physical therapy and practice .....	300
Total .....	4000

Section 5. Amendments to existing Section 7 as follows:

Sec. 7. One form of certificate shall be issued by the Board of Chiropractic Examiners; said certificate shall be

designated "License to practice chiropractic," which license shall authorize the holder thereof to diagnose and treat diseases, injuries, deformities or other physical or mental conditions of human beings, without the use of drugs and without in any manner severing any of the tissues of the human body.

Section 8. Amendments to existing Section 13 as follows:

Sec. 13. Chiropractic licentiates shall observe all state and municipal regulations relating to the reporting of communicable diseases, and shall sign birth and death certificates and make the required reports and file them with the proper authorities as required by law, and such reports shall be accepted by the officers of the departments to which they are made.

The excerpts given above show plainly how different is the proposed initiative, that will be on the November 7, 1939, ballot, from the initiative enacted into law in 1922.

\* \* \*

#### On Omissions in the Proposed Initiative.—

To what has been stated, may be added a word of comment on some of the omissions of certain prohibitory provisions in the 1922 act, namely, those denying to chiropractors the right to practice medicine, surgery, osteopathy, dentistry or optometry, as well as the use of any drug or medicine now or hereafter included in *materia medica*. Concerning this, it may be in order to quote a paragraph from the Appellate Court decision, above referred to:

The defendant contended that the limiting language found in the Chiropractic Initiative Act that licenses issued thereunder shall not authorize the practice of medicine, surgery, osteopathy, dentistry or optometry, nor the use of any drug or medicine now or hereafter included in *materia medica*, was purely surplusage and should be wholly disregarded. This was certainly not the position taken by the proponents of the 1922 initiative, the Court pointed out, nor did the people have any such intent in adopting the Act, if they paid any attention to the positive assurance given them by the proponents, as the Court supposed they did. The defendant argued that chiropractic is merely a phase of medicine and surgery, and since the license provided by the initiative act expressly permits the practice of chiropractic, the limitation was repugnant to the grant and must be ignored. But, the Court pointed out, all the parts of an act must be considered together and meaning and effect must be given, if possible, to each and every part. The initiative must, then, mean something by its provision that a chiropractic license shall not authorize the practice of medicine or surgery. Obviously, it does not mean to prohibit what has just been expressly authorized; that is, the practice of chiropractic. In view of the fact that the proponents of the initiative declared in 1922 that "the teachings and practice of chiropractic are admittedly different from those of medicine," that there was no objection to the scope of the license which a chiropractor could obtain under the Medical Practice Act, and that under the proposed initiative, chiropractors could not use drugs or surgery, the Court in the present case concluded that the words "medicine" and "surgery," as used in the initiative act, were intended to continue, as to chiropractors, the limitations imposed on drugless healers by the Medical Practice Act; that is, to deny them the use of drugs and medical preparations and the severing or penetrating of the tissues of human beings.

\* \* \*

**Issues Involved Are Important to Physicians and Voters.**—What has been written is presented in the hope that the members of the California Medical Association will be stimulated to give the proposed chiropractic initiative (Propo-

sition No. 2) that careful study so evidently indicated.

The chiropractic initiative secured its place on the November 7, 1939, ballot because almost 250,000 valid signatures were attached thereto when it was presented to the Secretary of State for approval. It is not possible to foretell the total vote that will be cast on November 7 next, but a news excerpt in the press clippings column of our current issue states that almost 2,500,000 voters have been registered, and so will have the right to go to the polls and cast their ballots, Yes or No, on Proposition No. 2. To bring about the defeat of the chiropractic initiative, it will be necessary, therefore, for all voting physicians to use every legitimate effort to acquaint their friends and clients with the true nature of Proposition No. 2.

#### BASIC SCIENCE LAWS

**Single and Multiple Examining Boards.**—In the United States, if a commonwealth has only one licensing board that passes on the qualifications of healing art applicants, licensure problems may be said to be of a simpler type than those met with in states having more than one examining authority. When multiple examining boards exist, it means that, in addition to the predominant group of physicians who practice nonsectarian medicine, cultist groups of practitioners have grown sufficiently strong to be able to secure for themselves separate legal recognition.

\* \* \*

**Sectarian Medicine.**—Cultist groups of practitioners that have come into existence in more recent years are quite different in their origin from the older sectarian divisions of homeopathic and eclectic practitioners. These latter, though they also held to more limited and more so-called specific therapy than regular practitioners, nevertheless, in other respects, were in practical agreement with nonsectarian or allopathic physicians and surgeons as regards pathologic factors in disease. In fact, at times, the courses of study in regular, homeopathic and eclectic schools, except in the chair of therapeutics, were not infrequently quite similar, the same textbooks having been used and the same teachings given.

\* \* \*

**Later Groups.**—Later, appeared the newer cultist groups—for example, the osteopaths and chiropractors, who, at least in their infancy, stressed the empiric and specific factors both in etiology and pathology.

In the propaganda to establish themselves, it is not to be wondered at that their pleas for recognition should have had particular appeal to disciples of lesser education; also, that in order to insure large student bodies for their respective healing art schools, it was quite necessary to present the lure of a mediocre standard of preliminary education and professional training. These lesser qualifications made it possible to have classes of students and graduates of considerable size. Cultist groups,



so fortified and with practice acts in which low requirements of training were required, were able to place in a commonwealth, in the short period of from five to ten years, large numbers of licentiated graduates. Thereafter, it became only a question of time when efforts would be made to extend the scope of their respective cultist laws. By processes such as these, in connection with the lax use of the doctorate title, it was possible, in many states, not only to lay the foundation for legal difficulties in the interpretation of the scope of sectarian healing art practice acts,\* but also, thereby, to create confusion in the minds of many lay citizens on the relative merits of nonsectarian or scientific, versus sectarian or cultist medicine.

\* \* \*

**Origin of Basic Science Laws.**—So patent did some of these evils become in certain of the multiple examining board states, that a solution was sought through the enactment of basic science laws.

The merit of a basic science law lies in its provisions demanding evidence of proper qualification in preliminary education—usually in studies deemed useful as part of the preparation of every practitioner of the healing art, no matter in what so-called school he might have become a disciple.

The minimum education exacted in most basic science laws is that which is usually possessed by graduates of four-year high school courses, who have had, in addition, one year of liberal arts education. In basic science states, no applicant for a license is eligible to take his examination if he cannot present a qualification certificate from the basic science board.

A basic science law, therefore, raises the educational standards of cultist groups, and thus presumably aids in making their disciples safer persons to present themselves to the public as healing art practitioners.

It is important that the determination of the qualifications of proficiency in the basic sciences be vested in a separate and impartial board in order to make certain that a basic science education is actually possessed.

During the last several months, the Committee on Public Relations of the California Medical Association has been giving renewed study to a basic science law; and, in due time, detailed information will be sent to the component county societies on the progress that has been made.†

#### WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION: ITS EFFICIENT SERVICE

##### State Auxiliary Formally Organized in 1929.

At the annual session of the California Medical Association held in Sacramento on Sunday, April 29, 1928, Mrs. John C. McReynolds, president of the Woman's Auxiliary to the American Medical

Association, gave an address in which the establishment of a Woman's Auxiliary to the California Medical Association was urged. On Monday, April 30, 1928, the Council's Report, under the caption, "Woman's Auxiliary," stated:

The Council advocates the formation of a Woman's Auxiliary to the California Medical Association. . . .

A committee was then appointed to draw up a plan of organization. The Council subsequently turned over to a new committee the responsibility of establishing the auxiliary, which was done in Coronado at the succeeding annual session of 1929.

\* \* \*

**Much Progress in a Brief Ten Years.**—Much progress has been made by the Auxiliary in the ten years that have elapsed, as may quickly be noted by an inspection of the list of county medical societies. Only sixteen of the component county units (those in italics in the list below) are not represented by coöperating auxiliaries. With the organization, at an early day, of an auxiliary in Sonoma County, the number of non-auxiliary societies will be reduced to fifteen. A list of county auxiliaries follows:

Alameda County Medical Association.  
Butte County Medical Society.  
Contra Costa County Medical Society.  
Fresno County Medical Society.  
*Humboldt County Medical Society.*  
*Imperial County Medical Society.*  
*Inyo-Mono County Medical Society.*  
Kern County Medical Society.  
*Kings County Medical Society.*  
Lassen-Plumas-Modoc County Medical Society.  
Los Angeles County Medical Association.  
Marin County Medical Society.  
*Mendocino-Lake County Medical Society.*  
Merced County Medical Society.  
Monterey County Medical Society.  
*Napa County Medical Society.*  
Orange County Medical Society.  
*Placer County Medical Society.*  
Riverside County Medical Society.  
Sacramento Society for Medical Improvement.  
*San Benito County Medical Society.*  
*San Bernardino County Medical Society.*  
San Diego County Medical Society.  
San Francisco County Medical Society.  
San Joaquin County Medical Society.  
San Luis Obispo County Medical Society.  
San Mateo County Medical Society.  
Santa Barbara County Medical Society.  
Santa Clara County Medical Society.  
Santa Cruz County Medical Society.  
*Shasta County Medical Society.*  
*Siskiyou County Medical Society.*  
*Solano County Medical Society.*  
*Sonoma County Medical Society.*  
Stanislaus County Medical Society.  
*Tehama County Medical Society.*  
Tulare County Medical Society.  
Ventura County Medical Society.  
*Yolo-Colusa-Glenn County Medical Society.*  
*Yuba-Sutter County Medical Society.*

\* \* \*

**Every County Society Should Have an Auxiliary.**—In addition to the information given in the department set aside for the Woman's Auxiliary in the OFFICIAL JOURNAL, additional editorial and other comment has been made, from time to time, on the important work carried on by the county auxiliaries.

\* For example, in the Letters department of this issue of CALIFORNIA AND WESTERN MEDICINE, note a recent opinion of the Attorney-General of California. See page 273.

† In this issue, for discussion of the draft of a basic science law, see minutes of the Committee on Public Relations, on page 254.

It may be in order, in considering work ahead on the proposed chiropractic and basic science legislation, to again call attention to the valuable services which members of a woman's auxiliary are able to, and do, render. Component county societies that have no auxiliary are requested to write to the president of the Woman's Auxiliary to the California Medical Association, Mrs. Frederick N. Scatena, 1400 Forty-first Street, Sacramento, or to the state chairman on organization, Mrs. Harry O. Hund, 1304 Grand Avenue, San Rafael, either of whom will be happy to aid in the establishment of an auxiliary unit. It would be much to the advantage of organized and scientific medicine in California if every county medical society also had a county auxiliary.

**Other State Association and Component County Society News.**—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 254.

## EDITORIAL COMMENT†

### IMMUNOLOGIC STUDIES OF TRACHOMA VIRUS

Evidence that, in monkeys, recovery from trachoma is not due to the formation of circulating antibodies, nor to the development of a local tissue immunity, is currently reported by Julianelle<sup>1</sup> of the Oscar Johnson Institute, St. Louis, Missouri.

In order to test the possibility of the development of a local tissue insusceptibility to trachoma virus, the St. Louis ophthalmologist inoculated the conjunctivas of normal monkeys with virus-containing grattage material of human origin, and attempted reinfection with similar material from two weeks to three months after full recovery from the first infection. In their initial inoculations, eye lesions were usually demonstrable after an incubation period of about twelve days, and spontaneous recovery by the end of about 12.5 weeks. On re-inoculation the average incubation period (11.6 days) and the average duration of the disease (13.1 weeks) were practically the same as in the initial test. No local immunity was demonstrable.

To test the possibility that spontaneous recovery in monkeys is due to the formation of circulatory antibodies, rabbits and monkeys were given from eight to twelve intravenous injections with grattage material. Ten days after the last injection their serums were tested for virucidal properties. Mixtures of these presumably immune serums and grattage material were incubated at 37 degrees centigrade for 30 to 60 minutes, and then inocu-

lated into the conjunctivas of normal monkeys, control inoculations being made with duplicate samples incubated with normal serums. No suggestion of either an increased or decreased infectivity was noted as a result of such neutralization tests, and the author concluded from such evidence that the trachoma virus is wholly nonantigenic for both rabbits and monkeys. Specific antibodies, however, were formed as a result of antigrattage immunizations, lysins and agglutinins for the human cells accompanying (or containing) the virus. But attempts to synergize or potentiate this apparently nonantigenic virus by the Burky technique were not made.

Confirming his negative results, the St. Louis experimenter found that the serums of trachoma patients contained no demonstrable trachomacidal factors, as determined by similar neutralization tests. No attempt, however, was made to test the virucidal action of the patients' leukocytes, either taken alone or in combination with serum.

His conclusion, that there is in monkeys neither a local nor a systemic immunity in experimental trachoma, leaves the phenomenon of spontaneous recovery in this animal species wholly unexplained. Determination of the presumptive local enzymic, hormonal or cytologic factor operative in this recovery may conceivably serve as a key to a successful therapy of numerous virus diseases.

Julianelle's work is of basic clinical interest, since it is such a clear-cut example of the limitations of current immunologic techniques. An entirely new method of experimental attack presumably will have to be devised.

P. O. Box 51.

W. H. MANWARING,  
Stanford University.

### CULTIVATION OF FOWL CORYZA "GRANULES"

Cultivation of fowl coryza "bodies" in a cell-free medium, and proof of the pathogenicity of pure cultures of these "granules," are currently reported by Nelson<sup>1</sup> of the Rockefeller Institute. This proof is confirmatory evidence of the existence of an important group of infectious agents intermediary between bacteria and viruses—"subbacteria" or "supraviruses" almost invariably overlooked in routine clinical laboratory tests.

Three years ago Nelson<sup>2</sup> divided fowl coryza into two clinical types. First, there is the conventional acute type of the disease, characterized by an incubation period of about forty-eight hours. This rapid type is almost invariably associated with the presence of the fowl influenza bacillus, *H. gallinarum*, in the nasal discharges. Second, there is a much rarer, slow type of fowl coryza, in which the average incubation period is approximately sixteen days, and in which the fowl influenza bacilli are invariably absent. Nelson was able to carry this slow, nonbacterial type of the infection through twenty successive generations in susceptible birds by serial transfer of nasal discharge.

<sup>1</sup> Nelson, John B.: *J. Exper. Med.*, 69:199 (Feb.), 1939.

<sup>2</sup> Nelson, John B.: *Ibid.*, 63:515; 64:1749, 1936.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

<sup>1</sup> Julianelle, Louis A.: *Am. J. Path.*, 15:279 (May), 1939.



Since there was no indication of a cultivable bacterium in this slow type, Nelson's initial experiments were directed toward the possibility that the etiologic factor is a filterable virus. In his hands, however, Berkefeld filtrates of demonstrably infectious nasal exudates would not reproduce the disease in normal birds.

Smears of nasal discharges from this slow type of the infection, however, almost invariably revealed the presence of minute, extracellular, Gram-negative granules, less than 0.5 micron in diameter. Nelson was unable to cultivate these granules on any routine bacteriologic culture medium.

In order to test their viability, therefore, attempts were made to cultivate them on egg membranes and in chick embryo mash. As many as one hundred successive subcultures of the coryza granules were made on egg membranes or in tissue mash, without appreciable loss of virulence or infectivity. Unlike conventional viruses, however, these granules multiplied in the extracellular fluids. Moreover, it was found that the granules would multiply almost equally well in sterile autolysates of chick mash prepared by incubating, for forty-eight hours, Tyrode's solution suspensions of finely minced ten-day embryos at 37 degrees centigrade. The faintly turbid supernatant fluid thus obtained could be heated to 100 degrees centigrade for sixty minutes, without destroying the essential growth factors. Serial transfer can be maintained indefinitely in this heat-inactivated, cell-free autolysate without appreciable loss of virulence or infectivity.

From this evidence Nelson concludes that the fowl coryza granules have a closer relationship to bacteria than to true viruses, and that they presumably belong to the same biologic class as the etiologic factor of bovine pleuropneumonia. For this class the generic term "Borrelomyces"<sup>3</sup> has been suggested. The fowl coryza supraviruses, however, does not exhibit the pleomorphic characters of the pleuropneumonia submicrobe. The immunochemical relationship of the Nelson granules to *H. gallinarum* has not yet been determined.

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<sup>3</sup> Turner, A. W.: *J. Path. and Bact.*, 41:1, 1935.

May I suggest, with respect to health education, that until we can establish some of our teaching on a more sound scientific foundation, we give a little less emphasis to personal hygiene habits—especially in our schools, teach the individual the importance of personal immunization, early medical care and diagnosis in illness, and impress upon him the value of community-wide environmental sanitation measures. We also need another kind of health education—what I call "political" education—acquainting the public with what the health department can do, what its objectives are and what its achievements have been. This aspect of our health education program has been sadly neglected in many sections of the country in the past. There is urgent need for teaching these things—interpreting health needs and the health program to the "man on the street," and the woman in the home.—Dr. C. E. Waller, United States Public Health Service.

## ORIGINAL ARTICLES

### MEDICINE IN A CHANGING WORLD\*

By THOMAS PARRAN, M. D.†  
Washington, D. C.

"The truth is that medicine, professedly founded on observation, is as sensitive to outside influences, political, religious, philosophical, imaginative, as is the barometer to the changes of atmospheric density. Theoretically, it ought to go on its own straightforward inductive path, without regard to changes of government or to fluctuations of public opinion. But look a moment while I clash a few facts together, and see if some sparks do not reveal by their light a close relation between the Medical Sciences and the conditions of society, and the general thought of the time."

THESE words of Oliver Wendell Holmes seem an appropriate introduction to our discussion of this evening.

What are some of the facts that we can clash together to reveal the state of medicine in today's changing world?

First is, that in no country has there ever existed a more complete body of medical information, such a group of well-trained doctors, dentists, nurses, and technicians, such well equipped hospitals, such competent facilities and brains for medical education and research.

#### RECENT ADVANCES IN LIFE-SAVING KNOWLEDGE

In no similar period of the world's history have we seen such a rapid growth of life-saving knowledge. Each year science gives us added tools with which to work, improves or perfects existing ones. Insulin against diabetes; liver extract against pernicious anemia; a simple vaccine protecting against yellow fever, at least eight specific vitamins discovered, most of them chemically identified and synthesized, producing dramatic cures of many nutritional disorders and even of obscure mental states not heretofore recognized as having a nutritional basis; sulfanilamide bringing miraculous cures to a host of streptococcic infections, and curative value claimed for as many as twenty different infections; and now comes sulfapyridine, taking the terror out of pneumonia. Through protective immunization, diphtheria is no longer an important public health problem. Typhoid fever is being extinguished. Even certain forms of cancer yield readily to expert treatment by surgery and radiation.

The general death rate in the United States and the rate for many specific preventable causes of death hit new lows every year.

It is easy to be complacent as we contemplate such facts, but when we look a little further, what do we find?

#### FACTS REVEALED IN RECENT STUDIES

The very growth of medical knowledge, its competence, has caused the people to want more fully

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to use it for the prevention and cure of their ills. Despite the excellent medical equipment, both brains and physical facilities of the country, it is not being brought fully to the service of the people. That good medical care is not now available to a large portion of the population is an accepted fact. The findings of the National Health Survey only elaborated and confirmed the opinion of representative members of the profession in the publication *American Medicine*. This in turn substantiated the facts and opinions adduced by the Committee on the Costs of Medical Care, under the chairmanship of Dr. Ray Lyman Wilbur.

Although seemingly divergent facts have been clashed together regarding national health, on analysis we find that they are not necessarily contradictory. In testimony before a Senate Committee of the Congress recently, it was stated that a partial tabulation of reports from good medical sources shows that only 40,000 people in the United States have been denied medical care. Other testimony from the National Health Survey was to the effect that in the present level of incomes in the United States there were 40,000,000 people in families having a total annual family income of less than \$800. It was stated further that such people were unable to provide good medical care out of their own resources. Not all of these 40,000,000 people are sick and need medical care. However, in any one year, 20,000,000 cases of disabling illness will occur in this group, of which a minimum of 8,000,000 cases will cause disability of at least a week's duration. Of the total in this group who are sick, about 2,000,000 of the more seriously disabling illnesses will receive no medical care.

In spite of great progress in community measures for the prevention of disease much more remains to be done. There are great opportunities for improving health conditions and to diminish greatly the public and private burdens created by preventable sickness and disability. Less than one-half of the counties of the United States have even the nucleus of a modern health service—at least a full-time health officer and one or more nurses—but by the large they are only skeletons of the organizations which are needed if modern, preventive services are to be made fully available.

#### COMMENTS ON SPECIAL PROBLEMS

Although tuberculosis has declined as a cause of death to seventh place, in the age group 15 to 45 years it is still the second most important cause of death. Approximately 420,000 persons now have tuberculosis in this country. To find every active case and to provide sanatorium care when needed is a major task.

Against the venereal diseases we have made a substantial start during the past two years, but the funds as yet made available are sufficient only to make a beginning in this campaign against diseases which should be among the first of the great plagues to go.

We have made progress also in reducing our loss of child life; yet between the several states there are unnecessary differences. Of every thousand

babies born in New Mexico or Arizona, eighty more of them will die than in New Jersey, Oregon, or Washington in the first year of life. We should cut in half our present loss of infant life. Science has shown us also that we can do the same with the present 11,000 annual child-bearing deaths.

We are agreed that we have a magnificent structure of medical knowledge. Yet last year nearly one-quarter of a million women did not have the advantage of a doctor's care at the time of delivery. In one state half of all the babies dying received no medical care.

Although this country leads the world in the number and quality of its dentists and in dental education and research, the vast majority of our population receives scanty attention, or none at all.

We have become an industrialized nation. Industrialization has brought new health hazards. Each new industrial process carries a potential threat to the worker. Industrial workers have a life expectancy of eight years less than the rest of the population. Our best estimates are that 250,000 persons have silicosis. Yet most states and most industries have barely made a start in providing essential industrial hygiene protection for workers.

In spite of the beginnings of a federal state coöperative service for crippled children, there are 14,500 of them now on the waiting lists of official state agencies needing hospital care, but not receiving it because of lack of funds to provide such care.

In spite of statements as to the proportion of persons living within thirty miles of a hospital, the facts are that we have a real deficit in hospital beds in many states. Less than one-half of the states provide from public and private sources one bed per annual death from tuberculosis. The best authorities agree that at least two beds per annual death from tuberculosis are necessary. Measured in these terms we have a national deficit of nearly 50,000 tuberculosis sanatorium beds.

#### HOSPITAL NEEDS

Although the facts are clear regarding the hospital situation in the country, there is wide difference of opinion concerning their interpretation. It has been estimated that we need an additional 350,000 hospital beds during the next decade. On the other hand, it has been stated that an average of 195,674 beds in existing institutions are empty. I would point out first, that 80 to 85 per cent bed occupancy is considered full capacity for general hospitals because of the necessary division of wards and sections by sex, disease, etc. For example, a temporary surplus of beds in the obstetrical ward cannot be used for the care of measles or scarlet fever. Medical and surgical conditions cannot be mixed. In some areas the color division further complicates the problem.

The most determining reason for empty beds, however, is the inability of patients to pay for hospital care. Irrefutable data show that the public hospitals, which by and large are free, are more than filled to capacity, while private rooms in voluntary and proprietary hospitals remain empty. There



is an anomalous situation, also, in the fact that in those areas with the lowest number of hospital beds per capita there is the highest percentage of unused beds; lack of money, not lack of patients, keeps them empty.

The National Health Program proposes to use public moneys, federal, state, and local, to pay for the care of needy patients in existing public and private hospitals. Every available bed in every hospital with decent standards would be utilized before more hospitals would be built.

Even when this is done, however, there still remains a need in many areas. In 1,338 counties containing about seventeen million people there is no registered hospital. Obviously, each of these counties does not need a hospital. It is estimated, however, that in the whole country we do need about five hundred rural hospitals. Many of these would replace present tumble-down shacks.

There is a wide variation among the states in facilities for institutional care of the mentally ill. We estimate that 130,000 new beds are required to bring all states up to the standard which the highest ranking fourth have met or bettered.

In the case of local general hospitals, the number of available beds varies among the states from 1.3 to 5.5 per 1,000 population. Professional judgment estimates that 180,000 additional beds in general hospitals will be required for all states to meet their demonstrated need. It may be true that there is an excess of hospital beds in some cities. The difficulty is, however, that we may not move the beds, and it is impracticable to move the patients over long distances.

There has been built up in this country a magnificent system of church and voluntary hospitals. In a program of federal action in the health field, more, not less use of private agencies should result. Every bed in these approved hospitals is needed for the care of patients.

Death rates alone are not a measure of national fitness. General death rates are low primarily because of the saving of life in the younger age groups. Since 1900 there has been no increase in the life expectancy of persons beyond the age of forty. Death rates do not reveal the 100,000 cases of pellagra which occurred in the South last year, nor other widespread nutritional deficiencies. The recent epidemic of scurvy in Maine is an example. Undoubtedly, the same situation exists in many other states. One has but to read the records of medical examinations among our school children, the military records during the last war, the medical records in Civilian Conservation Corps camps, and in industry to know that, as a nation, we are not physically fit.

Nor can we afford to be complacent about past accomplishments in medical research and education. Funds for research are drying up. Income on endowments is down. When a pebble is dropped into a pond the ripples create an ever-widening periphery. So, too, each added fact garnered by patient study widens the circle of knowledge, but it also increases the area of contact with the unknown. Medical research, therefore, must grow,

must expand. To stand still is to regress. Huge opportunities lie ahead if we but have the resources, the freedom to seek the truth, and the will to pursue it. Additional public funds represent the only apparent source for needed support to medical education and research.

#### WORLD IS CHANGING

That the world is changing none can doubt. That medicine is a vital part of our social fabric is equally obvious. It is clear, too, that the form of medical practice, the extent of its use by the public, the ways they pay for it, even how rapidly its knowledge expands, depend upon public will. Every barometer of public interest from successive Gallup Polls to the resolutions of women's clubs and farm bureaus, indicates a rising public demand for a larger share of service made possible by the knowledge and skill which we doctors now possess.

#### OBJECTIVES IN CONSERVATION OF HEALTH AND LIFE

We should be actively concerned to provide more and better medical care for the people and should be equally zealous that changes should not be made which will impede the continuing progress of medical science. Since medical science is dynamic it is inevitable that medical practice similarly must be adapted to change. Steps toward national health should seek not only to extend medical service, but vastly to improve it, and at the same time to avoid any revolutionary change in our present form of medical practice.

To provide the diverse services which medicine has to offer to all the people requires additional money, yes; but more than money there is needed sound planning, an accurate determination of need and the integration of services at each level of government. Although a first step toward integration of federal health services under one agency has been taken by the establishment of the Federal Security Agency, there still remains a large amount of administrative dispersion of responsibility among several unrelated agencies.

#### FIRST STEPS

The first step should be to coordinate the work of all federal health agencies. We can never attain national health and fitness simply by making money grants out of several federal pockets with no correlation between them, no joint planning, no uniform standards and with diverse budgetary requirements, systems of reporting, and multiple field staffs dealing with states and auditing accounts. At the state and local levels, the integration is equally necessary. More than this, the health program should seek better coordination of public and private facilities. The provisions of the National Health Program should supplement, never duplicate, the services of private charitable endeavor. Public health measures for the prevention of disease merge naturally with medical services for the diagnosis and treatment of sickness. So also, should public and private facilities together represent a unit service to the individual and the family.

It is true that governmental effort tends to become standardized. In providing government support for medical service, we must insure that we do not standardize and do not create vested interests which will resist future change. For example, under earlier voluntary health insurance schemes in Great Britain, duplicating, competing and expensive insurance societies were set up which made it impossible later for efficient administration to be provided under a compulsory scheme.

The need for flexibility and for widely different health programs to meet the diversity of conditions in various parts of the country, all provide strong arguments for the greatest freedom in the several states to develop their own programs under minimum federal safeguards, in order that we may learn by actual experience.

Objection has been raised to the National Health Program because under it federal funds would assist states in providing medical care under a system of health insurance. The National Health Program does not recommend a national system of compulsory health insurance, nor does it require nor coerce the states to do so. Very wisely, I think, it leaves a decision as to whether or not health insurance, either voluntary or compulsory, should be adopted in any state to the state itself. Among other advantages of our system of government is the fact that it permits experimentation on a state basis so that through actual experience a sound answer can be found to vexing social problems.

Herein lies the essential need for the united effort and best thought of all groups concerned with health in this country. In the vast kaleidoscope of the United States, no program for national health can attain its objectives without the exercise of democratic control at each level of government.

The rank and file of the profession recommends additional public funds to pay for the care of those on relief and the medically needy if these funds are spent to provide fees to doctors in accordance with traditional patterns. They resist any suggestion of group action or any system of salary payments or capitation payments.

There are those in the profession, however, among them some thoughtful leaders, who see in the progress of medical science the need for collaboration between groups of doctors, preferably centering around a hospital in order that separate skills of medicine may be made available to the patient, and in order that, through self-discipline and through critical professional judgment, the quality of service may be enhanced.

While I, personally, believe that evolution in medical practice is as inevitable as in its science, it does not seem wise for the governments—federal, state, and local—to use the influence inherent in public expenditures to bring about rapid changes in traditional patterns of medical practice. Minimum standards of competency must be enforced, of course; but at most the Government should do no more than to accelerate obviously desirable trends, both in the science and practice of medicine.

In the administration of health and medical service there are many highly technical problems. It

should be obvious that for sound progress medical direction is needed.

There are those, however, in the social welfare and labor groups who look upon medicine as a tool to be used by social welfare and social insurance administrators. They distrust what they term "medical control" and ask that there be public control. Sound progress toward national health cannot be made unless those directing it have expert biological, medical, and public health knowledge. Health legislation pending in the Congress does not recognize this basic fact. On the contrary, it further disperses federal health activities by setting up a new medical agency in the Social Security Board.

There must be coördinated administration, sound planning of state and local programs in advance of action, to guard against the pressure of federal funds to be spent before the states and localities have trained, competent personnel. Advising both the state and federal governments there should be a continuing body of experts. In developing professional policies the objective should be to provide in every locality a unified health and medical care service.

We need to do more than to protect against the hazard of sickness and to ameliorate its effects. Health security is not enough. We must have it, but we must have also a fuller measure of health opportunity. We need to build in America a race of people more physically fit, better nourished, possessing those dynamic physical qualities necessary to competence, to joy in life and living, and to the maximum attainment of mental and spiritual development.

#### HOW THE NATIONAL HEALTH PROGRAM CAN AID

The National Health Program represents the most comprehensive approach ever made toward solving the diverse and serious problems retarding our nation's health. It is the logical outgrowth of the first steps toward national health made possible by the Social Security Act, the National Cancer Act, and the Venereal Disease Act.

Its *first* objective is to reduce drastically the volume of sickness and ill health by making available to all areas and groups of the population needing service the proved methods of prevention—prevention of deaths of mothers and babies; a nation-wide attack on tuberculosis and venereal disease; promotion of industrial hygiene; the use of proved methods to lessen the burden of mental illness; the practical eradication of malaria which lays such a heavy burden upon large areas of the South. Pellagra and hookworm disease should go, completely. Pneumonia should be curbed with serum and simple chemicals. National nutrition should be enhanced.

The modern doctor needs increasingly the facilities best supplied by hospitals. As a *second* objective, the National Health Program, therefore, provides aid for the construction and maintenance of hospitals, though only where needed; and for the support of existing hospitals, public, church, and voluntary, alike. Aid also would be given to



construct diagnostic and health centers in sparsely settled areas to provide for rural doctors the resources of modern medicine, the workshops they need, which, in addition, would serve as centers for rural public health work.

The *third* objective is to reduce disability and lengthen life by more prompt and adequate medical care of the sick. A large volume of disability results from diseases which are not yet preventable; in illness due to these causes, competent medical treatment constitutes our sole resource to ameliorate suffering, to reduce disability and promote recovery.

*Fourth*, through temporary disability insurance, indirect health protection would be extended to the worker and his family by compensation for wages lost through sickness and accident.

Finally, and of much importance, greater federal effort is proposed to aid medical education to insure for the next generation well-trained doctors. Aid is proposed also for medical research that we may learn how to prevent and cure diseases not now controllable.

#### WHAT THE NATIONAL HEALTH PROGRAM DOES NOT PROPOSE TO DO

It is not proposed that the health and medical services of the country be operated by the Federal Government. The widest latitude would be left to the states in developing procedures and policies best adapted to their own needs. It is proposed that the Federal Government give grants-in-aid for health and medical care, to vary with the needs; the poorer states and the most needy communities receiving the larger proportion.

No statistical study is needed to convince you that disease begets poverty, and poverty, in turn, creates fresh disease; that, in good times and bad, sickness is an important factor in bringing self-supporting families to destitution; that among the various causes of poverty, sickness is the most easily preventable. Medicine, therefore, should take the lead in interrupting this vicious downward spiral. To do our part we need not wait for the economists to show us the way toward a higher wage for the masses.

Enough is known of the medical and health needs of the nation to begin constructively to do something about them now. There is little disagreement as to the objectives or as to the inevitability of national health action. There is, however, lack of agreement as to the extent of federal control and of federal participation. On each of these points I have a very definite personal opinion.

#### RELATIONSHIP OF FEDERAL, STATE, AND LOCAL HEALTH PROGRAMS

How far should the Federal Government go in exercising control over state and local health programs? There need to be established minimum safeguards for the expenditure of federal funds which insure not only honesty, but thrift of administration.

The proportion of federal aid should not be uniform among all the states. The greatest help should

be given where the greatest need exists. The rate of federal appropriation should not be in excess of the ability of a state to provide competent personnel, appointed on a merit basis, sound methods of administration, insuring effective service of high quality. The whole problem cannot be met overnight. It should be developed on an evolutionary basis with increasing appropriations as determined by the needs which are shown to exist from year to year.

By the very growth and competence of medical science, the complexity, and, therefore, the costs of good medical care have increased beyond the reach of persons otherwise self-sustaining. Moreover, we cannot tell when or how the blunderbuss of illness will strike. Its severity, its duration, its costs, are unpredictable. One must use, therefore, a different yardstick in measuring the needs of people for medical care than that used in measuring their needs for food and shelter.

Our first task is to minimize the risk of illness, to reduce the amount. This is more important than spreading the costs of medical care. Yet I believe that group payment of the cost of medical care for the self-supporting low-income group of the population, through taxation or insurance, or both, is an important factor in any complete national health program.

#### IN CONCLUSION

These, then, are some of the problems and opportunities which I see for medicine in this changing world. I agree with Dr. Oliver Wendell Holmes. Medicine cannot function in a vacuum. It is increasingly an essential part of our social order. That it will be responsive to the people's will is inevitable in a democratic system. What we are discussing is no academic problem; health has become a people's cause, a people's fight for life. We delude ourselves if we minimize its dynamic force, its tremendous vitality.

The people know the great treasures which medical science possesses for their use. They ask that we protect them against the hazards of sickness and ameliorate its effects. They ask also for a fuller measure of health opportunity. They know that medical science, untrammelled, free, and steadily encouraged, can bring this nation to a level of healthfulness far beyond anything we have ever known. Vastly improved national nutrition, better housing, recreation, physical and health education, all have an essential place if we are to give the American family the best opportunity for health. That we shall attain these objectives I have no doubt.

Your ancestors migrated to this west coast and hewed out a great empire from the riches of its mines, its forests, its soil. We are told that this frontier is gone. But another equally rich, more challenging frontier confronts us. It is the frontier of science, and the limitless energy of the human spirit. In one sector alone, medical science, are hidden untold treasures if we but explore it promptly, exploit it wisely, put it to work now for the use of all.

United States Public Health Service.

## BOXER'S HEMORRHAGE\*

By JESSE L. CARR, M. D.

AND

A. M. MOODY, M. D.

San Francisco

DISCUSSION by Walter F. Schaller, M. D., San Francisco; Edmund J. Morrissey, M. D., San Francisco.

MULTIPLE petechial hemorrhages associated with trauma of the brain have frequently been observed and reported, both in experimental animals and in man during the past five decades. Jakob,<sup>1</sup> in repeating Schmaus'<sup>2</sup> work, produced petechial hemorrhage in the brain and cord of rabbits and monkeys by subjecting the animals to minor blows which were designed to produce only concussion. He did not believe that these capillary hemorrhages were the result of contusion directly, but that they were only secondary to glial degeneration following concussion and its sequences. That petechial hemorrhage in the brain will follow concussion alone, without contusion of the brain substance, has also been reported by Ricker<sup>3</sup> and Cassasa.<sup>4</sup> The latter encountered five instances of multiple traumatic cerebral hemorrhage without associated fracture of the skull, and he attributed the bleeding to sudden overfilling of the perivascular spaces with cerebrospinal fluid, which, in turn, produced laceration of the vessels by tearing their walls in the neighborhood of the fibrillary attachments to the surrounding brain tissue. Osnato and Giliberti<sup>5</sup> reported a case of fatal injury of the brain in which the period of survival was thirty-six hours, and there was no fracture of the skull. They found petechial hemorrhages scattered through the centrum ovale, the corpus callosum and pons. Martland and Beling,<sup>6</sup> following Cassasa's theory, reported twenty-three instances of multiple deep hemorrhages in 309 cases in man, in which the outcome was fatal. In nine of these cases petechial hemorrhages were found. Winkelman and Eckel<sup>7</sup> reported seven cases of severe injury of the head in which there was microscopic study of the brain, and announced petechial hemorrhages in five of these. These authors did not commit themselves definitely as to the nature of the traumatic petechiae. Rand and Courville<sup>8</sup> studied the brain fibers and the glial reaction in relationship to petechiae. End-bulbs, corkscrew twisting and fragmentation of nerve fibers surrounded these hemorrhages. In the smaller hemorrhages there was no noticeable change in the glia, but in the larger hemorrhages regressive changes were produced by compression, local ischemia and softening, leaving a small, cyst-like space surrounded by more or less active proliferating glia. Glial rings were thus produced. Schaller<sup>9</sup> and his coworkers published a series of examinations on the human brain and experiments on the albino rat, through which they found deep

petechial hemorrhages present commonly, but did not believe that the mechanism of the ordinary forms was satisfactorily explained by traumatic tearing of the vessel. They concluded that deep traumatic petechiae were dependent chiefly on the effects of vasomotor concussion, causing vasodilatation, prestasis, anoxemia, impairment of the walls of the vessels, diapedesis and perivascular hemorrhage. Petechial hemorrhages are also known to follow not only indirect mechanisms of the sorts described above, but to occur as a sequence to contusion or bruising; this term being preserved for lesions produced at the instant of trauma and not confused with concussion in which the sequences require some time to develop. Gonzales, Vance and Helper<sup>10</sup> have found multiple small hemorrhages of petechial size associated with violence producing a sudden jarring of the head, but still not of sufficient moment to cause a fracture of the skull. They indicate that in these cases the brain is made to oscillate, and contuses itself against the skull and the different reflections of the dura like the falx cerebri and tentorium. For example, they have found multiple hemorrhages produced in the brain stem after an impact in the region of the parietal boss. They believe that such a movement causes the pons and cerebral peduncles to be injured against the sharp edges of the tentorium, sometimes to the point of complete laceration. On the other hand, the impacts against the lateral frontal region were observed to produce hemorrhages in the white matter of the frontal lobes, and in the basal nuclei. They found the corpus callosum could be involved by impacts over the frontal region in anteroposterior direction, causing that structure to be contused or completely severed by the sharp edge of the falx cerebri. In some instances they believe the oscillation of the brain inside the skull might give rise to punctate hemorrhages throughout both the grey and the white matter of the cerebral hemisphere. In 1931, Moody<sup>11</sup> reported a series of contusion hemorrhages of the brain in which, out of seventy-eight brains examined and showing varying degrees of contusion and hemorrhage, only forty-two were taken from dead persons who had fracture of the skull, and several had no evidence of injury to the scalp or pericranial tissue. In collecting his series at that time, one case was encountered occurring in a boxer where, following a severe beating, the individual died and at autopsy showed scattered, small, contusion-like hemorrhages in the cortex, cerebellum and stem. In the ensuing eight years we have collected a series of three more cases of contusion hemorrhages of the brain occurring in the stem in which there was no fracture of the skull, and no injury elsewhere in the brain, either cerebral or cerebellar.

## REPORT OF CASES

CASE 1.—The patient was engaged in a professional boxing match in Oakland, California, the evening of August 26, 1930. At 10:15 o'clock, during the second round of the encounter, he was struck, apparently on the jaw, and knocked to the canvas. He arose after a short interval and was able to continue and finish the round. During the following two rounds he seemed somewhat dazed and to have lost some coordination, but he managed to survive the two rounds successfully. All this time, however, his head was struck re-

\* From the pathological departments of the University of California Division of the San Francisco Hospital, the St. Francis Hospital, and the San Francisco Coroner's Office.

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peatedly by his opponent, rocking it back and forth and from side to side. In the fifth round he was again struck a sharp blow, which apparently caused a momentary loss of consciousness, and he turned clinging to the rope. At this point he was struck again sharply from behind just below the occiput, forcing his chin down suddenly and abruptly upon his chest. He slumped upon the ropes and hung there, receiving several more blows before the referee disengaged his opponent. He was carried from the ring, but failed to regain consciousness in his dressing room, so was taken to the hospital that night. The patient remained unconscious, moving occasionally during the night and the next morning, and, while preparations were being made to examine him, he died at 11:35 a. m.

#### AUTOPSY REPORT:

The necropsy showed a normal young, white male in an excellent state of development. Because of the normal character of the body, excepting the central nervous system, the general autopsy protocol is omitted here. In the central nervous system, however, there was considerable edema, both of the leptomeninges and of the brain. There were scattered small, contusion-like hemorrhages here and there beneath the cortex of the frontal, occipital and parietal lobes, and rather marked hemorrhages of a similar type in the brain stem extending from the base into the medulla. There was no evidence of disease in the blood vessels. The cerebellum also contained scattered small hemorrhages. Histological examination corroborated the gross appearance, and a diagnosis was made of subpial intracerebral and pontine hemorrhages with the characteristics of those which occur as the result of indirect violence.

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CASE 2.—On June 28, 1933, the patient was engaged in a professional fight in Reno, Nevada. During the third round of the fight he was knocked unconscious for ten or fifteen seconds by a sharp blow on the head. After being counted out, he got up and walked to his corner of the ring, seeming at this time to be normal. Two days later, on July 1, while sitting about in the evening, and after a few premonitory groans, he suddenly lost consciousness. He was taken to the hospital immediately, in a deep stupor; and upon entry, there was no response to painful stimuli. The reflexes were about equal on both sides, possibly a little more active on the left. There was a bilateral Babinski, a bilateral ankle clonus which was better sustained on the left than on the right, and both pupils were dilated and fixed. There was a slight muscular resistance in the left leg. All superficial reflexes were absent. The Kernig was suggestive on both sides, but there was no neck stiffness. The patient had alternating periods of restlessness and deep stupor, with respirations irregular and varying, with the periods of restlessness from 30 down to 8 per minute. The pulse was regular, but varied in rate with the respiration from 20 up to 48. A spinal tap was done, with release of frankly bloody fluid under a pressure of 198 millimeters of water. About 15 cubic centimeters were removed, following which the pressure dropped to 100 millimeters. The Queckenstedt was normal. Physical examination was otherwise normal. The patient was given artificial and pump respiration to relieve the respiratory stridor, oxygen inhalation, 100 cubic centimeters of 50 per cent glucose intravenously, and finally placed in a Drinker respirator in an effort to stabilize the respiration and pulse rate. On July 2, four days after injury, a right frontal craniotomy was done without anesthesia. At this time the patient's pulse could not be obtained, and his respiration was carried on solely by the Drinker respirator. When the dura was opened, no pulsations could be seen and the brain did not tend to herniate through the dural opening. There was some blood immediately beneath the dura which seemed to be just coagulating. At this stage in the operation it was evident that the patient was dead, and no attempt was made to clean out what appeared to be hematoma. The incision was closed with a single row of dermal sutures.

#### AUTOPSY REPORT:

The subject was a young Filipino male in an excellent state of nutrition and development. The body was normal, excepting for the head and central nervous system, and for this reason the general protocol is omitted.

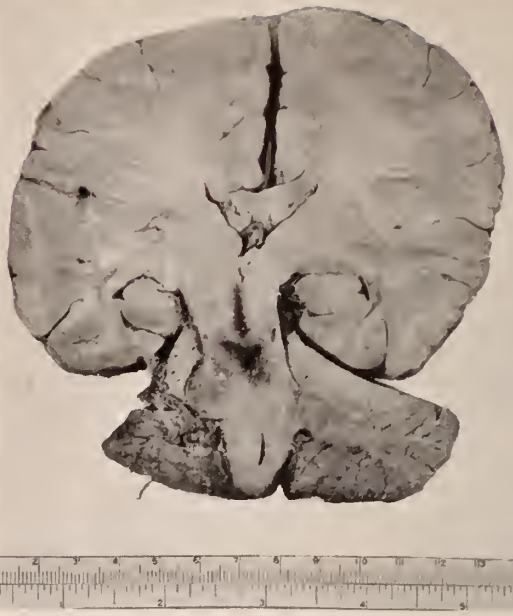


Fig. 1.—Central hemorrhage in the pons.

There was a small, shaved area in the right frontal region, where a horizontal incision had been made. There was a burr hole directly beneath this incision, through which the brain could be seen. The dura had been incised. There was a little blood in the opening. Upon lifting off the cranial cap, a very edematous brain was seen, which was stained with blood about the burr hole, apparently from the surgery. No subdural hematoma was seen. The brain was symmetrical, the convolutions were flat, and the sulci were shallow. The vascular arrangement was normal at the base, and sections through the cerebrum showed normal, symmetrical, undilated ventricles lined with a smooth ependyma. Upon making a longitudinal cut through the stem, fresh hemorrhage was seen arising from several small areas of contusions in the pons and dissecting through the adjacent structure into the medulla (Fig. 1). Blood had passed from these contusions into the fourth ventricle and down the spinal canal.

Microscopic sections showed a definite edema of both the brain and leptomeninges. The circulatory channels were congested. No areas of hemorrhage or degeneration were found in the cerebrum or cerebellum, but in the pons there was an area of fresh bleeding about which was contusion. Adjacent to this larger area of hemorrhage were many small spots of petechial bleeding.

1 1 1

CASE 3.—The patient was a middle-aged, white woman who for some time had been living under an assumed name with a man, as husband and wife. The two had been drinking, and on the evening before the patient came into the hospital there was some altercation between them, wherein the woman was rather severely beaten about the head. The patient became unconscious shortly after receiving the blows and remained upon the bed until the following afternoon, when she was brought to the San Francisco Hospital in a still unconscious condition. Her breathing at this time was stertorous, rapid and regular, and the pulse was very thready and rapid, though regular. There were several bruises over both eyelids, which were swollen shut, and there was a depressed area over the left zygoma. No abrasions were found on the scalp. On entering the hospital the patient's temperature was 104.5° F., the pulse was 128, and the respiration 52. The blood pressure at this time was 100/70. During the first hour on the ward the blood pressure fell rapidly, and at 4:30 p. m., one hour after entry, it was 80/65.

#### PHYSICAL EXAMINATION:

No lacerations were found on the scalp. Both eyelids were swollen shut and were ecchymotic. The pupils were

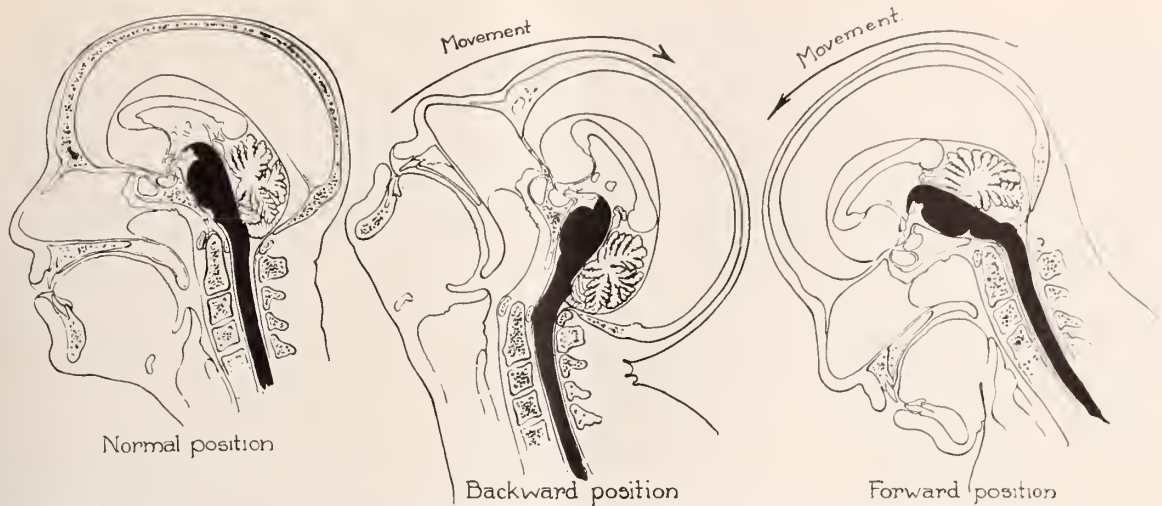


Fig. 2.—Schematic diagram of head movements showing accentuated flexion of the brain stem.

fixed in contraction and there was no response to light. The conjunctivae were clear. The ears and nose were normal. There was dried blood on the lips and the saliva was also stained a dark red. There was a depression over the left zygoma in the outer half, with swelling of the tissue about that region. The neck was not remarkable. The thorax showed a fair development, was symmetrical, and well formed. There were no areas of dullness in the lungs to percussion, and no râles in the lungs. There were, however, numerous rattling tracheal sounds. The heart was not enlarged, the pulse was thready but rapid, and the heart sounds were muffled by the rattling in the trachea. The tones were of poor quality and the apex beat was in the fifth interspace. The abdomen was soft and flaccid, and striae gravidarum were present. There was an old scar in the midline in the infraumbilical region, but there were no recent abrasions or evidences of injury to the abdomen or the vertebral column. The extremities were flaccid, as was all of the musculature of the body, and no reflexes could be obtained. A lumbar puncture showed a fluid that was slightly turbid and a little bloody. The pressure was 130 millimeters of water, 140 millimeters at the left jugular compression, 170 millimeters at the right jugular compression, and 190 millimeters upon compressing both veins. The Pandy was 3 plus. There were no white cells in the count and only a few red blood cells were found. Examination of the catheterized urine specimen showed a 2-plus sugar, 2-plus acetone, a few fine and coarsely granular casts, no albumin, 6 to 10 pus cells/HDF and a specific gravity of 1.025. The peripheral blood count was normal. Two hours after entry, at 5:55 p. m., the patient died.

#### AUTOPSY REPORT:

The subject was a white, middle-aged female in a good state of nutrition. External examination showed the physical markings of contusion and depression noted in the history. Excepting for congestion of the lungs and a moderate fatty infiltration of the liver, the viscera were all normal, and the general protocol is omitted here.

Examination of the central nervous system, however, revealed a brain which weighed 1,400 grams and which measured 18x17x10 centimeters. There was a diffuse edema, especially at the vertex, with flattening of the convolutions. The hemispheres were symmetrical and there was a moderate edema of the leptomeninges. No areas of contusion, laceration or hemorrhage were seen on the surface of the brain, and section through the brain showed normal, symmetrical, undilated ventricles lined with smooth ependymae, excepting in the fourth ventricle where the ependymal lining was distinctly granular. Section through the brain stem showed a single area of fresh hemorrhage, 7 millimeters in diameter, in the pons, 3 millimeters above the middle of the aqueduct of Sylvius. Microscopic sections of the brain showed a general edema with some vacuolization and zones of shrinkage around the pyramidal cells. In

the stem, tiny fine points of contusion were seen where there had been fresh hemorrhage. There were no evidences of old degeneration or injury.

#### SUMMARY

These three reports introduce hemorrhages in the brain stem which followed severe beating of the subject, with the individual at least in the terminal stages of the beating only partially conscious or, in the boxing sense, "out on his feet." At such a time the musculature is more relaxed than normal, and muscle tone is definitely decreased. The motion of the head upon the cervical vertebrae is more pronounced than during the usual state, and more acute angulation of the brain stem is possible upon flexion and extension of the head (Fig. 2). Because these first three cases which we encountered have occurred in connection with fisticuffs of some nature, the specific and limited injury is regarded as peculiar to boxers or fighters—to those people who are involuntarily beaten, or to others where the type of injury causes acute angulation, and pinching of the pons and medulla over the tentorium. The term "Boxer's Hemorrhage," therefore, is suggested for these injuries.

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#### DISCUSSION

WALTER F. SCHALLER, M.D. (909 Hyde Street, San Francisco).—Brain-stem hemorrhages, especially pontile hemorrhages following trauma, have been difficult to explain because of the excellent protection of this region of the brain, lying deep-seated and resting on the water cushion of the basal cisterna. These hemorrhages have been regarded as venous in origin, due to stasis and subsequent rupture of an impaired vessel wall. The stasis has been explained by thrombosis of larger vessels, as the veins of Galen or the venæ striæ terminalis, to which the ruptured one is contributory, or by the mechanism of local vasodilatation and stasis. These explanations receive support from the fact that hemorrhages quite similar to those following trauma occur in inflammatory conditions, and also in secondary to nontraumatic vascular lesions above the tentorium.

The mechanistic explanation of the authors is seductive, and an effort might be made to reproduce these lesions by animal experimentation. It is interesting to note in the article of Kernohan and Woltman on "Incisura of the Crus Due to Contralateral Brain Tumor," *Archives of Neurology and Psychiatry*, February, 1929, that the grooves caused by the pressure of the tentorium are often associated with petechial hemorrhages, as described by the authors. I have maintained (*Archives of Neurology and Psychiatry*, June, July, 1933) that there is no true shifting of posterior fossa contents in the mechanism of hernia into the foramen magnum, for example, as following lumbar puncture. However, the "pinching" described by the authors may be quite a different mechanism. Case 2 of the authors, because of the considerable interval of apparent normalcy after trauma (two days), is somewhat difficult to reconcile with a hemorrhage from acute angulation.

Before full acceptance of this theory several objections must be satisfactorily explained, namely, interval hemorrhage, the lack of occurrence or constancy in extreme cervical displacement—as in diving accidents—and the absence of any other demonstrable evidence of pinching, such as necrosis, laceration, or deformity.



EDMUND J. MORRISSEY, M.D. (909 Hyde Street, San Francisco).—The autopsy findings reported by Doctors Carr and Moody, of petechial hemorrhages localized especially to the brain stem, are extremely interesting and valuable. They offer an excellent explanation for the variety of symptoms and neurologic findings noted in boxers who have survived several severe beatings in the prize ring, often referred to under the unauthorized but popular term, "punch drunk." The two-day, symptom-free interval in Case 2 would indicate delayed hemorrhages.

Although these petechial hemorrhages of the brain stem, as pointed out, are rather characteristic of the cerebral trauma resulting from blows about the head received during fistic encounters, they do occur in other types of head injuries, and, therefore, the advisability of introducing the term "boxer's hemorrhage" might be questioned.

## INTRASPINAL PROTRUSIONS OF THE INTERVERTEBRAL DISCS: ROENTGENOGRAPHIC FINDINGS\*

By KENNETH S. DAVIS, M.D.  
Los Angeles

DISCUSSION by Carl W. Rand, M.D., Los Angeles; L. H. Garland, M.D., San Francisco; John B. Doyle, M.D., Los Angeles.

MIXTER and Barr, in 1934, were the first to call attention to the importance of intraspinal protrusions of the intervertebral discs in relation to sciatica and low-back pain. Prior to their report the incidence of protruded discs in the lumbar region was not often recognized, the majority of the reported cases occurring in the cervical region. Their investigation of this condition at the Massachusetts General Hospital, together with the reports by Mixter and Ayer, Hampton and Robinson and Love and Camp, proved conclusively that these lesions were ruptures of portions of the intervertebral discs and the nucleus pulposus into the spinal canal, similar to the posterior protrusions of the nucleus pulposus which Schmorl described and termed "posterior Schmorl's notch."

The clinical and surgical diagnosis of chondromas, enchondromas, ecchondroses, extradural fibrocartilagenous masses, etc., of which Mixter and Ayer in 1935 found forty-seven cases reported in the literature, undoubtedly represent a similar pathologic process.

#### ROENTGEN DIAGNOSIS

The roentgenographic signs of intraspinal protrusions of the intervertebral discs may be classified as direct and indirect. The direct signs, when present, are of questionable value and do not justify one in making a positive diagnosis. Hampton and Robinson, also Love and Camp, in an analysis of a large series of proved cases of protruded discs, found approximately 40 per cent of their routine spine roentgenograms entirely negative or without any significant changes being present.

#### NARROWED INTERVERTEBRAL JOINT SPACE

In Camp's series of fifty proved cases of protruded discs, narrowing of the intervertebral space was found in twenty-seven instances; but in nineteen of these the narrowed disc occurred at a different level than the site of the lesion as found at operation.

Both Love and Camp, and Hampton and Robinson, found that the intervertebral spaces between the fourth and fifth lumbar, and the fifth lumbar and upper sacral segment, were the most frequently narrowed, these also being the levels at which the majority of intraspinal protrusions occur. However, when you take into consideration the fact that narrowing of these interspaces occurs with greater frequency than elsewhere in the spine, the conclusion must be that there is no dependable and consistent relationship between a narrowed inter-

\*Read before the Industrial Medicine and Surgery Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9-12, 1938.



Fig. 1



Fig. 1a



Fig. 2

Figs. 1 and 1a.—Normal filling of the lower lumbar subarachnoid space after introduction of 5 c.c. of lipiodol. Note the pouch-like projections on the lateral margins of the lipiodol column. These mark the point at which the nerve roots leave the dural sac.

Fig. 2.—Filling defect produced by intraspinal protrusion of the intervertebral disc between the third and fourth lumbar vertebrae.

vertebral joint space and the presence of a protruded disc at the same level.

#### HYPERTROPHIC CHANGES

Hypertrophic lipping at the margins of the articular surfaces of the intervertebral spaces occurs with such a relative frequency that its significance in the direct localization of protruded discs is of very questionable value. As a general rule the process is not localized to a single intervertebral space. However, in one instance in our series of cases there was noted hypertrophic lipping on the posterior margins of a narrowed interspace; this interspace being the site of a protruded disc on surgical exploration.

#### POSTURAL SCOLIOSIS

Postural scoliosis and loss of the usual lordotic curve of the lumbar spine are frequently associated with this condition. These findings are of little clinical significance since they occur with such relative frequency in other conditions as sacroiliac strain and sciatica.

#### COMPRESSION FRACTURES

The association of compression fractures of the vertebral bodies with protruded discs is a very infrequent one. In Love and Camp's series of cases this occurred in only three instances; in two of these the protruded disc was quite remote from the level of the compression fracture. For this reason the diagnosis of fracture will not indicate the site of the protrusion, except in a very small percentage of cases.

#### SCHMORL'S NODES OR NOTCHES

The typical prolapse of the nucleus pulposus tissue through the intervertebral cartilage into the spongiosa of the vertebral body is of infrequent occurrence, and so far no one has demonstrated the association of this condition with posterior protrusions of the intervertebral discs.

#### AIR MYELOGRAPHY

Young and Scott have reported a series of thirteen cases in which subarachnoid injections of air have been used instead of lipiodol in the roentgen visualization of tumors and herniations of the cartilaginous discs in the spinal canal. In all of these cases the roentgenographic evidence was verified by laminectomy. Practically, this method amounts to a lumbar puncture, with withdrawal of the spinal fluid and replacement by an equivalent amount of air. If the lesion is suspected below the third lumbar vertebra, the patient is placed on his side in the Trendelenburg position at an angle of from 35 to 45 degrees. Usually from 20 to 40 cubic centimeters of air are required to outline the lumbo-caudal sac in adults. If the lesion is above the third lumbar, the spinal needle is inserted in the third lumbar interspace with the patient on his side in the horizontal position, and a Queckenstedt test is done. If this test indicates a spinal block, from 3 to 6 cubic centimeters of spinal fluid are withdrawn and replaced by air. The patient is then put in a sitting position, and anteroposterior and lateral roentgenograms are taken to show the level of the block. No one can doubt the efficiency of this procedure when a complete subarachnoid block exists, but in our experience the interpretation of roentgenograms without block is difficult even under the most exacting technique.

#### EXAMINATION WITH LIPIODOL

The use of lipiodol indiscriminately in all cases of low-back pain or sciatica is certainly not to be recommended. Prior to its use, a carefully taken history and a thorough physical examination should be done by one competent to do neurologic and orthopedic examinations. Furthermore, the examination of the spinal fluid to determine its hydrodynamics, and to obtain a specimen of the fluid for chemical and microscopic examination, is always indicated before the use of lipiodol. The Quecken-





Fig. 3



Fig. 3a



Fig. 4

Figs. 3 and 3a.—Filling defect produced by a marked hypertrophy of the ligamentum flavum. The filling defect was bilateral and there was an incomplete obstruction to the passage of lipiodol column when the patient was placed erect. Note the consistency of the findings on two separate dates.

Fig. 4.—Normal air myelogram after introduction of 25 c.c. of air in the subarachnoid space.

stedt test should be performed routinely to determine the presence or absence of subarachnoid block above the level of the spinal puncture needle. Usually in cases of protruded discs this sign is negative, but when positive it is of the utmost significance. Love and Camp have devised a test which they have termed the "reverse Queckenstedt," that is of considerable value in the determination of the presence of a lesion in the cauda equina. With a spinal puncture needle in the lumbar canal they inject a one per cent solution of procain hydrochlorid into the caudal epidural space. This extradural injection causes compression of the dura mater, and if there is a lesion that is already compressing one or more of the nerve roots of the cauda equina, this procedure will produce unbearable pain.\* When this test is used in a normal spine, there is a rise in the intraspinal pressure, as determined by a manometer attached to the spinal puncture needle. If a block exists, no increase in the monometric reading will be observed.

An examination of the spinal fluid is made for syphilis, and with reference to the cell count and the total protein. If the total protein is greater than 40 milligrams per 100 cubic centimeters, this indicates the possibility of a protruded disc. However, Love and Camp report that in eleven of their cases of protruded disc the protein content of the cerebrospinal fluid was normal.

#### TECHNIQUE

Five cubic centimeters of lipiodol are injected into the intraspinal subarachnoid space, after which the patient is placed in the sitting position for about five minutes to allow the oil to gravitate into the sacral cul-de-sac. The patient is then put in a *prone position* on a tilting fluoroscopic table, with the head elevated about 20 to 25 degrees. Under

fluoroscopic observation the table is gradually tilted downward, and the *column* of oil is followed up the spinal canal as far as the upper dorsal region. *If the table is tilted too rapidly*, however, the column of lipiodol will become thinned out, rendering diagnosis unsatisfactory. If a *persistent defect* is observed, a roentgenogram is made immediately at this level without disturbing the patient. The fluoroscopic examination should include not only the routine prone position, but the patient should also be screened in both prone obliques and laterally as well. When the upper level is reached the table-tilt is reversed and the column of lipiodol is observed when it returns to the sacral cul-de-sac.

It has been our experience that incomplete obstruction is best demonstrated using this procedure. The patient is again placed in the sitting position and the process again repeated, with the patient lying supine; although, so far, this method has not revealed pathology which we could not demonstrate by the routine method. Since protruding discs are situated in the anterior portion of the spinal canal, they produce their maximum filling defect when the patient is lying prone. In this position the heavy oil will gravitate to the ventral aspect of the subarachnoid space and be in close contact with the protruding disc.

It has also been our custom to reexamine the patient within two or three days, the reexamination serving as a check on our original observations. This is especially necessary in those cases showing filling defects in the column of lipiodol or partial obstruction to its flow.

#### THE NORMAL ROENTGEN PICTURE AFTER LIPIODOL

There is considerable variability in roentgenograms of normal spines after injection of lipiodol into the subarachnoid space, depending on the amount of lipiodol used and the relationship of the nerve roots to the lateral wall of the sac. Close contact between the nerve root and the lateral wall prevents filling of this portion of the sac to a greater or lesser degree so that some part of the root, rather than the wall of the lumbar sac, frequently forms the lateral outline of the lipiodol picture.

\* Recently Doyle has substituted normal saline solution for the procain hydrochlorid, with equally satisfactory results, thereby eliminating the danger of any untoward reaction with the procain.

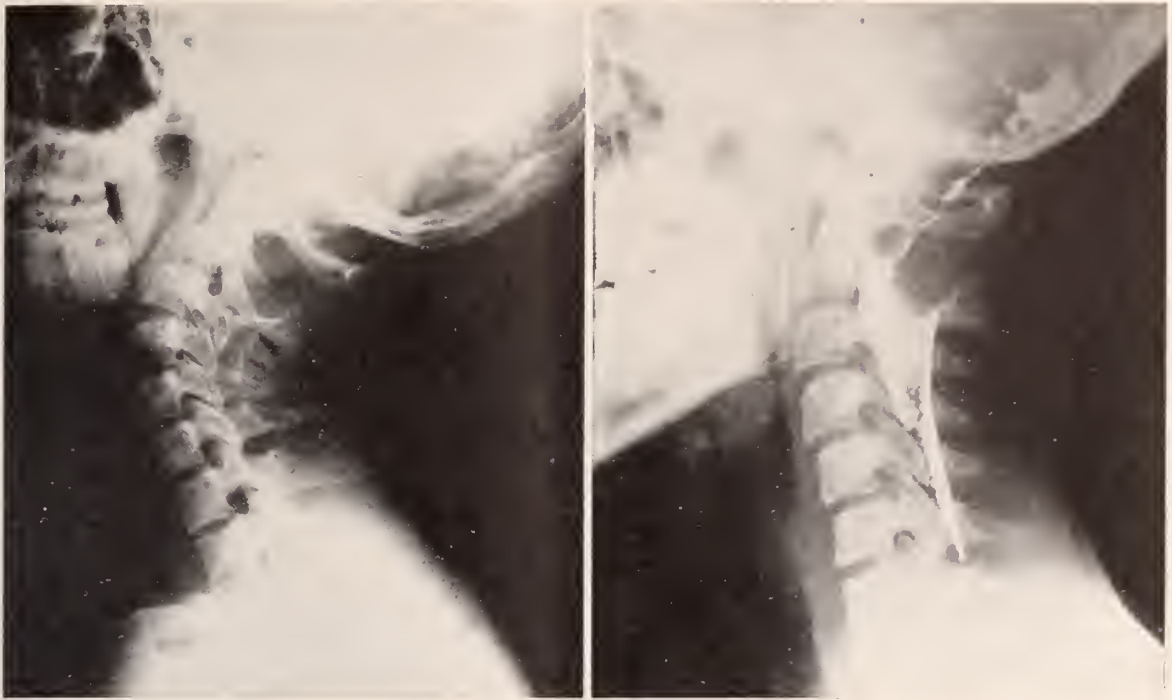


Fig. 5

Fig. 5.—Spinal cord tumor with erosion of the dorsal arch of the second cervical vertebra right side. There was an incomplete obstruction to the passage of the lipiodol at this point. The lipiodol exactly outlines the tumor.

#### DEFECTS IN THE COLUMN OF LIPIODOL CAUSED BY PROTRUDED INTERVERTEBRAL DISCS

The "characteristic" defect is produced by a mass ventral to the dural sac (generally unilateral), which elevates the lateral portion of the sac and compresses it and its contents against the roof and sides of the narrow lateral portion of the vertebral canal. The defect presents itself on the roentgenogram as a sharply defined, rounded indentation in the lipiodol column on one side of the midline opposite an intervertebral disc. This "defect" is best seen in the prone or prone-oblique views and, contrary to expectation, the lateral view often gives surprisingly little information if the lesion is unilateral. This is due to the fact that the defect on the involved side is obscured by the dense lipiodol in the uninvolved part of the sac. Furthermore, shallow defects may be produced by normal bulges of the intervertebral disc in the lateral view which may be misleading, unless a corresponding defect is seen in the anteroposterior roentgenogram.

In addition to the defect produced by the mass of the protruded disc, certain changes in the shadows of the nerve roots may be present at the level of the lesion. Usually the medial border of the defect is formed by the outline of a nerve root. The lipiodol picture may show the edge of two roots on the upper margin of the defect. Edema of one or more of the roots may be recognized if it is outlined, and occasionally displacement of the shadows of the nerve roots may be seen.

In one or two instances in our cases we noticed that there was a nonfilling of the nerve-root sheaths on the side of the lesion. We regarded this finding as of questionable significance, unless there was a corresponding defect. It was of practical value

only when the nonfilling persisted in a reëxamination after a period of several weeks.

Filling defects in the interspace between the fifth lumbar and sacrum are more difficult to demonstrate and interpret than those seen at a higher level. Hampton and Robinson call attention to the fact that the fifth lumbar and most of the first sacral nerve roots are extradural at this level and are, therefore, outside the confines of the lipiodol column. For this reason a lesion compressing either of these roots may produce a minimum defect in the contiguous subarachnoid space. Generally, then, the size of the defect is in disproportion to the actual size of the protruded fragment when removed at operation. Hampton and Robinson also state that protruded discs at this level were found to be broad and flat, rather than round and circumscribed. Protrusions of the whole disc produce a very unusual roentgenographic picture when a complete subarachnoid block does not occur. There is usually noted a bilateral defect suggesting rupture on both sides. Bilateral defects may also be present with a protruded disc which is associated with a hypertrophy of the ligamentum flavum.

#### DIFFERENTIAL DIAGNOSIS

In the differential diagnosis of protrusions of the intervertebral discs there are many conditions to be considered. Chief among these are intraspinal neoplasms and hypertrophy of the ligamentum flavum. Fortunately, there is the same relative treatment for all three conditions, so that the exact diagnosis should not concern us unduly. However, there is one point in the differential diagnosis between protruded discs and hypertrophic ligamentum flavum that should be mentioned. In the lateral view the defect in protruded discs is



anterior, whereas in ligamentum flavum the defect is posterior.

Other conditions, such as lumbosacral and sacroiliac strain, spondylitis, and hypertrophic arthritis, are generally excluded by the clinical examination, the routine spine roentgenograms and the examinations of the spinal fluid, and are, therefore, not primarily a problem for x-ray diagnosis.

#### GENERAL COMMENTS

From a survey of the literature and a review of our own cases we must conclude that protruded discs occur most commonly in the lumbar region, particularly in the interspaces between the fourth and fifth lumbar, and the fifth lumbar and the upper sacral segment. The condition occurs more frequently in males than in females, and is seen usually in the third, fourth, and fifth decades of life, although it may occur at any age. Generally the symptoms for which the patient seeks relief have been present for a long time and the patient has had the usual conservative methods of treatment for lumbago, low-back pain, and sciatica. A careful neurological examination is always indicated prior to any laboratory or x-ray procedure. Lipiodol should never be used without a thorough examination of the spinal fluid, and until all other methods of diagnosis are exhausted.

One should always bear in mind the fact that lipiodol in the subarachnoid space remains for an indefinite period, and for this reason its indiscriminate use should be condemned.

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#### DISCUSSION

CARL W. RAND, M.D. (523 West Sixth Street, Los Angeles).—How accurately pioneers in medicine sometimes may describe pathology, which later is demonstrated visually by others! In 1911, Goldthwait suggested that many cases of lumbago and sciatica might be explained by anterior displacement of the intervertebral disk at the lumbosacral junction. Twenty years later the fact was demonstrated repeatedly by Mixter at the same hospital where Goldthwait worked. Thus, Goldthwait's earlier reasoning and deductions were proved sound.

Doctor Davis has given us a comprehensive review of the subject to which I can add little. In my practice I have been surprised to encounter more cases of hypertrophied ligamentum flavum than of dislocated nucleus pulposus. I believe this is not in agreement with the majority of other observers. In suspected cases of dislocated nucleus pulposus, or hypertrophied ligamentum flavum, myelography has been employed as a method of study before injection of lipiodol. If the air study suggests a lesion which the history and clinical picture supports, lipiodol may then be used. As lipiodol is a mild irritant and practically non-absorbable, its use is only indicated where a surgically removable lesion is strongly suspected. One cannot over-emphasize the importance of having proper x-ray equipment for making spot films during the fluoroscopic examination. When a dislocated disk or hypertrophied ligamentum flavum is removed surgically, the postoperative results are usually satisfactory. Patients without a compensation angle usually do better than those coming under industrial jurisdiction. In either instance I believe it is seldom necessary to employ bone grafting in order to strengthen the spine.

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L. H. GARLAND, M.D. (450 Sutter Street, San Francisco).—Severe unilateral sciatica is such a crippling complaint that we are justified in using every intelligent diagnostic test to detect the cause thereof, especially when neurosurgery has so much to offer those with definite intraspinal protrusions. Doctor Davis has covered all of the

important roentgen diagnostic aspects of this condition. However, there are a few minor comments I should like to make concerning his paper.

First, the words "roentgenographic findings" are used in the title. The paper itself indicates, and I should like again to stress the importance of roentgenoscopic evidence of such lesions. Therefore, one might prefer the term "roentgenologic findings" in the title, since this would cover both film and fluoroscopic examinations. I have a vivid recollection of one case (seen through the courtesy of Dr. E. J. Morrissey) in which the roentgenoscopic findings gave a clue to the presence of a lesion on the left side of the third lumbar disk, when the initial roentgenographic findings appeared quite negative. This, of course, is not a common finding. It has not been my experience that the differential diagnosis between protruded intervertebral disk and hypertrophy of the ligamentum flavum may satisfactorily be made by lateral projections. I am interested in Doctor Davis's comments concerning this point, and will devote more attention to it in the future. I cannot agree that the defect in the lipiodol column produced by a protruded disk is "sharply defined"; it is so only in a minority of cases. I quite agree that it is best seen in the prone position.

Concerning the superiority of lipiodol over air as a contrast medium, I heartily agree with Doctor Davis. Neither medium should be used until all ordinary diagnostic methods have been exhausted. While local leptomeningeal reactions do occur around the lipiodol, these are associated only with transitory clinical symptoms under ordinary conditions, and we have seen cases in which the opaque medium lay in the patient's subarachnoid system for as long as fourteen years, without being productive of clinical symptoms. It is to be noted that the lipiodol may be scattered not only throughout the subarachnoid spaces of the spinal canal, but also through those of the cranial cavity. We have seen cases in which it lay in the ventricles and basal cisternae, apparently encapsulated, without being productive of any symptoms. Some of the collections of oil in the spinal canal remain movable, especially the large ones; most of those in the skull are fixed. I wish to compliment Doctor Davis on his brief and comprehensive article on this important topic.

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JOHN B. DOYLE, M.D. (1930 Wilshire Boulevard, Los Angeles).—The papers that have been presented at this symposium show well the progress that has been made since 1934 in establishing an exact diagnosis for a group of patients suffering from persistent low-back pain, with or without sciatic radiation. The average patient in this group is a young or middle-aged adult, who gives a history of direct violence to the spine or of indirect injury, especially of the type associated with lifting heavy loads or with falls, in which the weight has suddenly been thrust onto the feet or the buttocks. There may be a relatively short progressive history or a long history of repeated episodes of low-back pain, associated as a rule with radiation along the course of one or both of the sciatic nerves.

Examination generally reveals diminution or loss of the normal lumbar curve in profile view, and a list or scoliosis. Lasègue's sign is generally positive. Diminution or actual loss of an Achilles reflex is not infrequently encountered. There may be relatively mild sensory changes.

A concentration of the total protein of the cerebrospinal fluid higher than 40 milligrams per cent is to be found in about 75 per cent of cases of protrusion of a nucleus pulposus. In cases of this sort one is warranted in using lipiodol. Before lipiodol is injected in the remaining 25 per cent, the development of additional evidence, such as that afforded by the reversed Queckenstedt maneuver, is required. After lumbar puncture has been made and a spinal manometer fitted to the needle, a one per cent solution of procain hydrochlorid is injected into the spinal epidural space through a needle in the sacral hiatus. The compression exerted on the dural sac results in a rise in the manometric pressure if subarachnoid block is not present. In the presence of herniation of a nucleus pulposus or hypertrophy of a ligamentum flavum excruciating pain occurs before 40 cubic centimeters have been injected. To overcome unpleasant symptoms occasionally attendant upon injection of a solution of procain, I have recently successfully substituted normal saline solution.

## CARCINOMA OF THE PROSTATE\*

By FRANK HINMAN, M.D.

AND

DONALD SMITH, M.D.

San Francisco

DISCUSSION by Elmer Belt, M.D., Los Angeles; H. C. Bumpus, Jr., M.D., Pasadena.

**INTRODUCTION.**—Cancer is a calamity to mind and body which is universally dreaded. It is a known disease in the sense that it is a common cause of death and very few recover from it. Yet the causes are still unknown, although untold millions have been and are being spent in the hope of making this discovery. The recognized methods of cure are irradiation and surgery, but they are effective only when applied early. Cancer seen late is hopeless. At onset, cancer is localized, but spreads sooner or later according to its nature, by extension or by the lymphatics and the blood stream. The disease attacks all tissues; and in those parts readily observed, like the skin, it receives the earliest recognition, and in consequence shows the highest rate of cure (over 90 per cent). Early diagnosis has become synonymous with cure. What have irradiation and surgery done for cancer of the prostate? Can this disease be recognized early enough to be cured? My own answer to these questions is given by the following review of the sort of life and death suffered and endured by 191 victims of cancer of the prostate, who have been under my management during the past two decades. (Table 1.) It is a dismal reminiscence relieved,

urology on women, children, and men, I find that cancer of the prostate forms about one per cent of that practice. No man need fear it much before he reaches fifty-five years of age, and the majority are over sixty-five when it is discovered (Table 2).

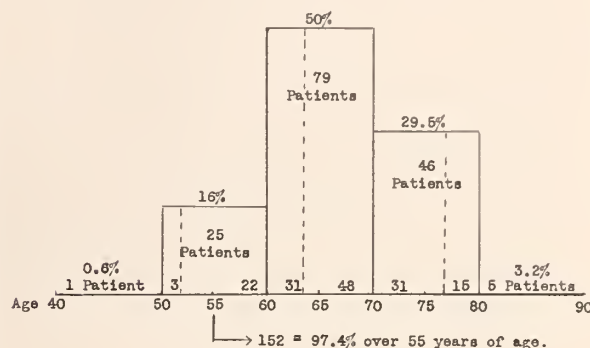


Table 2.—Age Incidence

## THE DIAGNOSIS

Ninety per cent of patients with cancer of the prostate would be cured if only it caused pain or hemorrhage, or something pathognomonic at onset; but it gives no warning. The first benefit accruing from discovery of the cause and nature of cancer may be a sure method of early diagnosis rather than a specific cure. How utterly unscientific are present methods! The "stony hardness" felt by the finger in the rectum is characteristic only when cancer is well advanced, and at all stages must be distinguished from inflammatory indurations and prostatic calculi. Usually positive diagnosis is ventured only after repeated examinations and massages over periods of months, and a change during this time molds the final opinion; the induration softens, remains stationary, or increases. What little is known of the nature of cancer is enough to warn that this system is foolhardy; it must hasten the spread of cancer. Furthermore, all cancers are not stony-hard. In two particularly do I recall the sensation of softness (a medullary cancer), and almost of fluctuation (papillary adenocarcinoma with necrosis). In twenty (13 per cent), associated with enlargement above average, cancer was unsuspected on rectal palpation; the diagnosis was made at operation in eighteen of these (usually confirmed on the spot by frozen section), and a pathological diagnosis was made later in two. In these two the cancer was found in the midst of hyperplasia, a form of cancer never recognized clinically in its early stages. This form is more common than here indicated. Only by serial section is its true incidence established. By this means Hryntschak<sup>1</sup> found it in 3 per cent of the prostates which he had enucleated suprapubically, in none of which had he suspected cancer. This form of primary malignancy within hyperplasia differs from the common form of primary cancer of the prostate which elects the posterior lobe, and is unrelated to hyperplasia except by coincidence, but may invade it. Most patients with hyperplasia harboring a malignant change of this kind (who have been so fortunate as not to have received interminable massages before operation which spread it in lymph or blood) would be cured by simple

TABLE 1.\*—Carcinoma of the Prostate Gland (191 Cases)

156 Cases with complete records:

133 were operated upon.  
14 received radiation only.  
9 had no treatment.

35 Cases with incomplete records (diagnosis by rectal examination only):

7 received radium.  
1 received x-ray.  
27 received no treatment.

(These thirty-five cases are not included in this study.)

\* Search of the records at office and hospitals has been done by Dr. Donald Smith, and these, together with the follow-up letters, have been analyzed with his help.

however, by a few interruptions in the usual fatal course of the disease, and these few survivors form the anchor of a future plan of management which it is my purpose now to present.

## INCIDENCE

Cancer of the prostate holds no minor place as a cause of death for men. It is comparable to cancer of the uterus in women, but is much more deadly. Of men with prostatism, one in every five has cancer; and occasionally this disease is discovered in the prostate of a man in whom micturition is normal. In twenty years' practice in

\* From the Department of Surgery, Division of Urology, University of California Medical School.

Read before the Urology Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9-12, 1938.



TABLE 3.—*Metastases to Bone as Shown by X-Ray*

Number of cases examined by x-ray...84 = 53.8%  
 Number found to have metastases .....22 = 14.1% of total  
 or 26.4 per cent of those examined by x-ray.

*Site of Metastases:**Pelvis:*

Sacrum .....	7
Ischium .....	7
Ileum .....	14
Pubis .....	5
Sacro-iliac joint .....	3
Pathological fracture of ischium .....	1

*Spine:*

Lumbar spine .....	13
Dorsal spine .....	2
Cervical spine .....	2

*Other Bones:*

Femur .....	4
Ribs .....	4
Clavicle .....	2
Scapula .....	3
Skull .....	2
Humerus .....	1
Fibula .....	1
Facial bones .....	2

prostatectomy if this primary cancer had remained so limited. Two patients are now being watched with this hope in mind. If Hryntschak's figures represent a true average, then fourteen or fifteen others in the group with supposedly benign hyperplasias have been cured of an unsuspected cancer. In contrast, consider two patients operated on long ago for benign enlargement; I did not suspect cancer, nor was it found by the pathologist. One of these patients returned in seven years with cancer of the prostate; he died in the hospital and the diagnosis was proved by autopsy. The other returned after eighteen years with an advanced carcinoma, having had no urinary complaint up to the last four months. Both of these cancers probably developed after prostatectomy in the posterior lamella (as the common form does) and were unrelated to the hyperplasia.

Symptoms, unfortunately, do not lead to early diagnoses. Almost all patients (95 per cent) will have some degree of prostatism. Only nine in my series had no urinary complaint, and the average duration of disturbance in the others was three years. For this, the associated hyperplasia is mostly responsible. Pain also is a late symptom. Exploration for metastases by x-ray is of negative value; nevertheless, it is of importance, as cancer occasionally has spread extensively to bones or lungs without much growth locally, so that it is often unsuspected even on rectal palpation. Of my eighty-four patients in whom x-ray examination was made before treatment, twenty-two (26.4 per cent) had evidence of metastatic cancer (Table 3).

When the induration is felt to have extended into one or both seminal vesicles, and primary cancer in these structures is excluded, the diagnosis of the primary lesion in the prostate is far from early. More than half of my patients had such involvement when seen. When the induration is noted cystoscopically to have extended into the neck of the bladder, as was done in thirty-three of

my patients, the diagnosis is late. When inguinal lymph-nodes are involved, even though the roentgenograms are negative, and the vesicles and vesical neck normal, the diagnosis is late. Such nodes, removed for biopsy in three patients, showed a typical picture of prostatic cancer, and one wonders the relationship of this type of metastasis to previous massages. The use of a perineal needle for biopsy to obtain an early diagnosis raises doubts of propriety; for if cancer is present, needling might spread it. This method is of value only when the result is positive, and has been of no real help to me. Much more logical is open exploration when suspicion of an early lesion is aroused. I regret that I have used this sure means only four times. I recall suggesting, to the referring physician, perineal exploration on a patient of prominence, and the consultant I called in as a consequence disagreed with the suggestion. I did not examine this patient again; he died some three years afterward, whether of cancer or not will never be known. Periodically appearing in my office for massage are two patients with small areas of induration under suspicion now. Each time I ask myself, should exploration be done? Is the method of checking up, watching and waiting for a change, before deciding that the lesion is or is not cancer, more dangerous than an immediate exploration would be? On the other hand, how many negative explorations would be justifiable? One could hardly explore all indurations. This uncertainty on rectal palpation accounts in part for the disheartening rarity of early diagnosis. It is surprising how equally experienced fingers may disagree about what they feel. A patient in my list recently died in San Francisco of obscure causes. At autopsy, however, extensive metastases and prostatic cancer were found. When I saw him three years before his death, cancer was suspected and the relatives were so informed. Experts in the East disagreed, and believed the changes of induration and fixation to be wholly the result of inflammation. The patient did have a marked pyuria and a prostatitis which improved under treatment. The early biopsies with needles, both here and in the East, were negative. In view of all this, the intermittent courses of massage for the next three years, always with temporary benefit of symptoms, seem justified. Yet an exploration at the onset would have disclosed the truth and offered a cure. The almost universal practice of subjecting prostates which are under suspicion of cancer to the repeated trauma of massage for the purpose of differentiation, is open to criticism. Other methods of relieving inflammation may be inferior, but there is no method more damnable for cancer. While in doubt it is preferable to use other methods than massage in treating the prostatitis and to use rectal examinations to note any changes which may help in making a decision. Never knead a lump in the prostate which feels like cancer for the purpose of causing its absorption if it is not cancer, any more than you would think of so maltreating a suspicious lump in the breast or the testicle or any other part of the body. Exploration by perineal exposure with biopsy is justifiable whenever the findings

point with any degree of probability to a malignancy which is early in the sense that it is confined locally and is operable.

### THREE GROUPS

If you agree with me that an early diagnosis is essential to the cure of prostatic cancer, we can divide male patients into three groups: patients with cancer, patients under suspicion, and patients entirely free from suspicion. If you believe, however, as many do if they be judged by their methods, that cancer of the prostate is incurable, such division is immaterial because treatment always is purely palliative. Those with faith in radical surgery, however, view the problem of treatment from two sides, namely, that of early diagnosis, with the hope of radical cure which is thus made possible, as well as from the side of palliation and the relief of symptoms. With this twofold aim, treatment becomes more complicated, but more hopeful and more interesting. Thus, all patients can be subdivided either for an attempt to cure or for palliation; and even when relief of symptoms is uppermost, the method of relief will be chosen always with the possible discovery of cancer in mind, so that the method can be turned at need to the cure of cancer as well as to the relief of symptoms (prostatism). When the method of treatment is chosen either with the idea of curing the patient of cancer or with that of securing the maximum of palliation, the division of patients is as shown in Table 4.

### SURGERY

So far as I know, radical surgery is the only method which will cure cancer of the prostate. A decade back, radium was used vigorously in fourteen patients, and more recently, with the advent of high voltage in x-ray, this form of radiation was tried hopefully. Aside from relief of pain in some, and possibly a slight prolongation of life, the results were most discouraging. The result in three patients is unknown, but eleven died miserably with an average length of life of less than a year. X-ray therapy and radium have been used frequently in connection with palliative surgery, as is shown in Table 5, in which patients are listed according to the eight methods of treatment. Examination of the 133 records (156 minus 23 equals 133: 9 not treated; 14 irradiated) of these eight groups will show the very few patients who can be considered to have been cured by radical surgery, and the degree of relief for the remainder of life given to the others, none of whom was cured.

Only three of twenty-four patients who have had resection to relieve obstruction are alive; none longer than two years. Three had been treated for prostatism by suprapubic prostatectomy. Twenty-one are dead; three died shortly after operation; fourteen within one year, three in two years, and two in three years; all died of cancer. (The records of two are incomplete.) In four of these patients the resection was repeated. Recurrent hematuria and attacks of pain and frequency were the unpleasant experience of the majority during their short period of life. In no patient was relief satisfactory and permanent.

TABLE 4.—*Subdivision of Patients*

#### *Group I. Patients with Cancer*

1. Operable.
  - a. Common type: Clinical evidence indicates that the cancer is confined and local.
  - b. Uncommon type: Never recognized clinically.
2. Inoperable (invasion of seminal vesicles, vesical neck, or the presence of metastases).
  - a. Common type:
    - (1) Associated with prostatism.
    - (2) Associated with infection (or calculus).
    - (3) Associated with pain.
  - b. Uncommon type:
    - (1) Associated with infection (or calculus).
    - (2) Associated with pain (perineural).

#### *Group II. Patients Clinically Suspected of Having Cancer*

1. With prostatism.
  - a. Perineal biopsy for the common type.
    - (1) Median bar,
      - (a) When positive = Group I.
      - (b) When negative—close perineum and do the punch operation.
    - (2) Hyperplasia,
      - (a) When positive = Group I.
      - (b) When negative—proceed with perineal prostatectomy.
  - b. All hyperplasias can be suspected since malignant degeneration affects 10 per cent.  
Complete clean removal of the hyperplasia in one mass, therefore, is preferable.
2. Without prostatism.
  - a. Periodic observation,
    - (1) By rectal palpation.
    - (2) By roentgenologic exploration for metastases.
  - b. Biopsy,
    - (1) By needle puncture.
    - (2) By transurethral section of suspected nodules or infiltrated-looking areas seen cystoscopically at the vesical neck or in the prostatic urethra.
    - (3) By perineal section.  
(When positive = Group I.)

#### *Group III. Patients Clinically Without Suspicion of Cancer*

1. Periodic rectal examinations of all men over 50 in order to discover as nearly at the onset as possible, the common type of cancer which is primary in the posterior lamellae and produces the stony-hard induration.
2. Complete and clean removal of all hyperplasias in one mass either by the suprapubic or perineal route, in order to cure the type of cancer which begins as a malignant degeneration of a hyperplasia, and which gives no clinical signs until late.

### CONSERVATIVE PROSTATECTOMY

It is difficult to estimate the value, if any, of conservative prostatectomy, the perineal enucleation of a hyperplasia which is obstructive without attempting to remove any of the cancer associated with it. The operation is purely palliative, an effort to relieve urinary distress and, in this sense, is comparable to resection. Of the fifty-eight patients thus treated, cancer had not been suspected previous to operation in nine (this number does not include the malignant degenerations found in hyperplasias, by the pathologist, subsequent to



TABLE 5.—*Treatment of 156 Cases of Carcinoma of Prostate*

Type of Treatment	No. of Cases	Totals
Fulguration of nodules—bladder neck .....	1	1
Cystotomy only .....	3	
With fulguration of carcinoma, and radium .....	1	4
Radiation only:		
Radium .....	10	
X-ray .....	3	
X-ray and radium .....	1	14
Transurethral resection .....	19	
With x-ray .....	4	
With immediate cystostomy .....	1	24
Conservative prostatectomy .....	21	
With x-ray .....	3	
With radium .....	31	
With radium and x-ray .....	2	
With x-ray, T. U. R., and chordotomy .....	1	58
Partial radical prostatectomy .....	10	
With radium .....	8	
With fulguration of carcinoma at bladder neck .....	2	20
Radical prostatectomy .....	16	
With radium .....	4	
With x-ray .....	1	21
Transplants and cystoprostatectomy .....	5	5
No treatment .....	8	
Drainage of perineal abscess .....	1	9
	156	156

operation), although it was too far advanced to permit radical removal. In thirty-three patients radium seeds, each from 1 to 3 millicuries, were buried at intervals of one centimeter throughout the cancerous area at the time of operation. One of these patients lived four years, one five years, and one seven years, but all died of carcinomatosis. More recently five others had intensive deep x-ray therapy, but none survived two years. One other, without irradiation, survived six years, but died of recurrence. With these four exceptions, no patient lived longer than two years and twenty-nine died within a year. The records are incomplete in six; six died after operation, four are living less than two years after operation, all with cancer, and the other forty-one are known to have died of cancer. As a rule, these patients lived out their lives with less discomfort than those in whom resection had been done, and in three the prolongation of life after the use of radium cannot be disregarded.

#### PARTIAL RADICAL PROSTATECTOMY

In twenty patients listed as having had partial radical prostatectomy it was found impossible, upon attempting radical operation, to remove all the cancer because it had extended beyond the vesicles, too far up the vas or into the bladder. These patients, therefore, are not included in the group of patients in whom radical operation was done. A few in this group had definite metastases to inguinal nodes and bones. Nevertheless, because of its local limitations, greater relief was expected by total prostatectomy than by either resection or conservative enucleation. Five died in

the hospital. Nine died of cancer within two years. One lived five years; six are living less than two years. None has been cured, but generally these patients have been more comfortable than the run of patients in either of the previous two groups.

#### RADICAL PROSTATECTOMY

In only 21 of the 156 patients was radical prostatectomy possible. It was felt that all local cancer had been removed at operation. Before operation none showed any clinical evidence of metastases. The seminal vesicles were invaded, however, in eleven. Three patients died shortly after operation: one of pulmonary embolism, one of paralytic ileus, and one of pneumonia. Six died afterward, having cancer at the time of death; three after three years, cause of death not known in two, asthenia in one; the others after one year, one of heart failure, two of asthenia (carcinomatosis). Seven died with no evidence of cancer, three of senility, one eight years and two each seven years afterward. One died of coronary thrombosis after four years. One committed suicide in two years, and the other two died within a year of an unknown cause. Five are living with no clinical evidence of cancer: one for seven years, one for two years, and three under one year. All have good control and no urinary complaint. On a conservative basis, this shows a cure of half of those treated radically, which is not bad; but a cure of eleven out of a total of 156 patients is a poor showing.

#### ESTIMATION OF BENEFITS

In estimating the relative benefits of the eight different methods of treatment, it must be remembered that most of these 156 patients have had a short expectancy at best. Even in the group of twenty-one early diagnoses, fourteen were over 65 years of age, and seven were 70 or over. Whatever their expectancy, these men want to live free of pain and without urinary distress. To accomplish this, radical surgery is most certain, and even with its limitations the aim to cure cannot be neglected. It should be attempted even in borderline cases like the partial radical resections mentioned above.

If radical surgery is out of the question, treatment should aim for the greatest relief and, as indicated in the discussion on diagnosis, associated conditions form a big factor in this problem. These are the patients classified as inoperable in Group I, but who are now, from the standpoint of treatment, better subdivided into those with or without prostatism, and those with or without infection, thus:

TABLE 6.—*Patients With Cancer Which Cannot Be Completely Removed*

1. Those without prostatism.
2. Those with prostatism.
  - a. Median bars,
    - With infection.
  - b. Hyperplasia,
    - With infection.

Patients who clinically show cancer so advanced as to be incurable, but who have no enlargement or urinary obstruction associated therewith, may be left untreated, or irradiation may be used when they suffer pain from pressure or extension.

Patients with median bars and incurable cancer may be relieved temporarily by resection; but, if severe infection or calcification is present, radical prostatoscemic vesiculectomy will give the greatest, most enduring relief, and life may be prolonged by imbedding radium in the local areas of cancer which are left.

Patients with hyperplasia and incurable cancer may be treated by conservative prostatectomy supplemented by the full use of irradiation. If an extensive infection or calcification complicates the prostatism, prostatoscemic vesiculectomy with irradiation offers the greatest benefit. These patients are not helped much by resection.

In conclusion, everyone must admit that early diagnosis and radical surgery will cure cancer of the prostate; therefore everyone should fully realize the difficulties of diagnosis and should make an honest effort to overcome them so as to increase the number of cures which, at present, are so woefully few.

384 Post Street.

#### REFERENCE

1. Hryntschak: Sixth Congress of the International Society of Urologists, Vienna, September, 1936.

#### DISCUSSION

ELMER BELT, M.D. (1893 Wilshire Boulevard, Los Angeles).—In fourteen years we have seen 212 cases of such carcinoma.

In twenty-five patients we felt, after careful physical examination, that the growth could be completely circumscribed by the radical perineal operation, and tried it. In eighteen of these, a close inspection of the specimen revealed the presence of cancer and showed the growth to be confined within the specimen. Ten of these eighteen are living and well: one after nine years, two after eight years, three after three years, one after one year, one after six months, and one after three months. In seven of this group of twenty-five cases, the cancer had extended up to the cut edge of the part removed and, therefore, probably beyond it. They were given massive treatment with deep x-ray therapy. Five are living and well—three after three years, one after two years, and three after one year. One died of metastases after five years and one after four.

This is the best series in this group. It presents a result in which the slender victory is a surgical victory and follows the rules laid down by all who watch the progress of the treatment of cancer everywhere in the world, namely, early recognition and early wide excision.

Because extremely careful studies have revealed that the point of origin of cancer of the prostate in 75 per cent of the cases is in the posterior lobe, an area directly beneath the palpating finger on rectal examination, more cases should be recognized early. They are not recognized early because many do not produce symptoms calling for examination and because of the general failure of physicians to recognize the lesion by rectal touch.

In fourteen of our cases, largely before the days of electrosurgical resection, a perineal procedure was carried out to open a channel through the carcinomatous mass, realizing that the total growth could not be removed. All of these patients have died, although many were treated by deep x-ray later, and some lived as long as five years after the procedure.

On three occasions, microscopic examination of a clinically benign growth has revealed cancer within the adenomatous tissue removed. We feel that such patients are best served by subjecting them to further treatment with deep x-ray therapy.

Five patients have presented themselves to us with a carcinoma in the prostatic bed at a time remote from a previous prostatectomy. In two of these cases, two years had elapsed before symptoms recurred. In the others, four, six, and seven years, respectively, had elapsed. All succumbed rapidly to metastases in spite of vigorous deep x-ray therapy.

Eighty-eight patients with prostatic cancer have been afforded relief from vesical neck obstruction through electrosurgical resection. Forty-eight had metastases when first seen. Forty had no visible metastases and were given vigorous deep x-ray therapy in the hope of effecting an arrest of the growth. Of these resected groups, those having had deep x-ray therapy and those untreated except by resection to relieve obstruction are about equal in respect to length of life from the date of onset of symptoms; but on the whole the x-ray treated group are in less pain and look healthier. But sudden appearance of metastases is frequent in the treated group.

Unfortunately, no one can now know precisely when the wriggling ameboid cancer cells have wormed their way down the nerve sheaths, and along the lymphatic channels beyond the field about to be subjected to irradiation. These unreached cancer cells are probably responsible for the sudden appearance of metastases in individuals in whom the original mass is known to be subsiding under treatment.

Seventy-six of our patients were so ill when first seen that only palliative efforts, such as cystostomy or the administration of opiates for the relief of pain, could be offered.

On the whole, cancer of the prostate is a disease of advanced age. It is a general characteristic of this entire series that the struggle against death is not concerned with cancer alone, but allied with death are all the forces which lend frailty to age.

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H. C. BUMPUS, JR., M.D. (112 North Madison Avenue, Pasadena).—When Doctor Hinman honored me by requesting that I discuss this paper, he did so knowing that our views on the subject are very much at variance. Yet another indication, it seems to me, of his broad and liberal nature.

Cancer of the prostate cannot be accurately compared with other forms of malignancy because of its late occurrence. Hinman states: "No man need fear it much before he reaches fifty-five years of age, and the majority are over sixty-five when it is discovered." This fact alone compels a different consideration of its treatment than that given to other malignant disease. That these patients have the shortest life expectancy of any group suffering from malignancy is bound to influence therapy. It is one thing to tell an individual in the early forties, with a life expectancy of several decades ahead of him, that radical surgery has the possibility of curing him, although it is accompanied with great risk, but it is quite another matter to inform the patriarch of seventy-five, with an expectancy of less than a decade, that he should risk a major radical procedure with a high mortality rate for the remote possibility of a cure.

Such advice is still further weakened by the fact that cancer of the prostate, unlike other malignant diseases, not alone occurs late in life but is one of the slowest growing of all types of malignant diseases. Numerous cases, proved by biopsy, are on record of patients with cancer of the prostate living over five years with no other form of treatment than relief of their urinary obstruction, and several cases are recorded of those who have survived for over a decade. It is this slow growth of cancer of the prostate which has led to such confusion concerning its treatment.

In most malignant diseases, the number of three-year controls is given as a criteria of the success or failure of treatment. In cancer of the prostate, the average duration of the disease untreated is over three years. I once traced 171 of these cases from their first symptoms to death, and found an average duration of three and one-quarter years. Fenwick of England had estimated three years as the average duration of the disease. This being the case, the fact that some patients have lived over three years, after a particular type of treatment, means little. In this disease, a sufficient number should live over five years after treatment to warrant a belief that the particular form of therapy employed had any effect. Of the twenty-two cases in which Doctor Hinman felt radical prostatectomy offered a good



hope of cure, only four survived that length of time; while in over half of the group death occurred before the average length of life for the untreated disease was reached.

In the little over forty patients upon whom he performed radical prostatectomy, Doctor Hinman reports a mortality of over 20 per cent. That the urinary obstruction produced by this slow-growing malignancy should be removed, we are both in full agreement; but that it should involve a 20 per cent risk, and an attempt at cure of the malignancy in those with such a limited life expectancy, we are in violent disagreement.

Doctor Hinman's conclusion, that everyone must admit that early diagnosis and radical surgery will cure cancer of the prostate, requires the most careful consideration, for cannot a cure be purchased at too great a price? When one has but a few years to live, is not the relief of suffering by less hazardous measures preferable to risking all on the very doubtful possibility of cure?

I doubt that the diagnosis will ever be made earlier than at present. As he states, the perineal needle is of doubtful assistance, being of only positive value, for when normal tissue is obtained one can never be sure he has not missed the malignant area. As for exploratory biopsy, the same doubt would apply to negative findings plus the added risk of the procedure, and, as Doctor Hinman states, "How many negative explorations would be justified? One could hardly explore all indurations."

To advise a yearly check of the prostate by palpation, and when indurated areas appear to urge immediate surgery in the absence of any urinary symptoms, is to totally disregard the reluctance with which those patients suffering with urinary obstruction now submit to lesser operations. If the information is also given the patient that radical perineal prostatectomy carries a 20 per cent mortality as an incidental price of a possible cure, I doubt if any male in good health would take the risk, urged only by the finding of a suspicious area in his prostate.

I think we should take a realistic view and acknowledge that we will not see such cases earlier, and that cures will be extremely rare and associated with a high mortality. Any other view appears as wishful thinking.

Rectal examinations have become such an established routine procedure of physical examinations that they have reached the stage of humistic reference among the laity, and its omission for a routine physical examination would be at once interpreted as derogatory to the examining doctor's standing.

In spite of these facts, in but twenty-one of the one hundred fifty-six cases referred to was Doctor Hinman able to discover the condition early enough to attempt complete radical removal; and in half of these he found the seminal vesicals already involved at the time of operation, so the number of cases with the possibility of surgical cure was immediately reduced to eleven, or a little over 7 per cent of those seen. More than 7 per cent of these cases will live out their normal life expectancy if relieved of their urinary obstruction. Hence, cures can be expected, Doctor Hinman thinks, only by more frequent radical surgery. The literature abounds in descriptions of radical operations for the complete removal of malignant disease; but, with the exception of Doctor Hinman's work, it is almost devoid of any reports of results after a period of five years. Yet, there are recorded numerous series of cases in which only the urinary obstruction was relieved. In 1926 I reported one of the earlier of such series, a group of 117 cases, in which the obstruction was relieved by cystostomy. These patients average twenty-four months of postoperative life; thirty-four were alive at the time of the report, of whom six had lived over five years. Since the technical development of transurethral resection, cystostomy is no longer necessary, and I think nowhere has transurethral resection met with as much favor and success as in relieving these old gentlemen of their obstruction without attempting to cure their malignancy. Did urinary obstruction not call attention to the changes in the prostate, many an aged male would go to his reward from cardiac failure, stroke or pneumonia without being aware that he had ever harbored malignant disease in his body.

Did the disease occur earlier in life, and were it capable of earlier diagnosis, I might agree with Doctor Hinman on the advisability of attempting cure by radical surgery. But it does not, and, in these old men, I think palliation is

preferable to attempted cure, while it certainly results in more years of life for the greater number.

The employment of the radical operation by the unscrupulous upon more advanced cases is contributing its bit to the general discredit into which our profession lately has been falling.

✱

DOCTOR HINMAN (Closing).—The reader of the foregoing discussions should know, if he does not already, that the difference between the opinions expressed by Bumpus on the one hand, and by Belt and myself on the other, are fundamentally irreconcilable. Bumpus does not speak our language. He is just as intelligent, just as sincere and every bit as honest. His background, his training in urology, however, have been entirely different from ours. We do perineal surgery. He does not. We also do transurethral surgery and can compare personal results. He can compare statistically only and, as shown by his getting a 20 per cent mortality from my paper, statistics, as so frequently is the case, lie.

In the interest of truth, let the facts speak for themselves. In the first place, cancer of the prostate is a common form of malignancy. For the majority, life expectancy after diagnosis is less than two years. Urinary disturbances—frequency, difficulty, pain and burning of urination, hematuria, pyuria and urinary sepsis contribute a miserable end to existence. To most men with cancer of the prostate, life is torture and death often is welcome. Most victims will grasp any straw of relief held up to them by their physicians. Here is exemplified, in its purest form, the personal responsibility of doctor to patient. Never greater, in the interest of the patient, is the doctor's need to know this truth. Never truer, the confidence of the patient in his doctor. Knowing the truth, the doctor deceives or discloses as he thinks best. Not knowing the truth, the doctor may bungle and then the confidence of a patient is broken too late.

In the second place, although prostatic cancer strikes men down after their prime, after their fifth decade, after they have retired, perhaps from active strife and possibly are not of much use any more, still it seems to most of them that life offers many advantages of enjoyment not available in their younger years, and they may be more reluctant than ever to leave it. The life expectancy of all, at least all under ninety-five, is over two years. Because they are three score, or three score and ten, or more, occasionally three score and twenty,\* should they be denied a chance of cure simply because they have not a lifetime ahead of them or because cure is available to so few of them? Radical surgery for all men with cancer is out of the question. This means that it is useless for the majority. Since it has been proved that early diagnosis and radical surgery are curative, is it not logical to make every effort needful for a timely diagnosis, even to advising an exploratory biopsy when the surgeon is reasonably suspicious but not sure? Is this sort of reasoning sound surgery? If followed through with diligence, will it not increase the availability of cure? I am convinced that it will. This last year, two doctors, aware of the facts and suspecting cancer because they felt by rectum small indurated areas in the prostate, referred these patients for exploration, and cancer was found in both. I am confident that prompt radical removal has cured these men, both of whom knew beforehand what it was all about and were anxious to take the risk.

In the third place, facts like the foregoing minimize the value of statistics, and render mortality rates of secondary importance. Look at the beating brain surgeons have taken. Or consider in this connection how few cancers of the kidney are cured by nephrectomy, or those of the testicles, by orchidectomy. In the face of discouragement, are we to fold our hands and give up? Too many other reports are available for those of you who can read to take my statistics seriously. My twenty-one patients are only a drop and, even though three died, it does not mean that three of the next twenty-one would. Only twenty-one of the 156 patients had a lesion which was thought before operation to be limited and removable, and many times this lesion was found not to be so limited. Does not this pitiful showing

\* One grateful patient of mine survived radical surgery for cancer at eighty-two, lived in peace and comfort for eight years, to die—without cancer—of natural causes at ninety.

of the lack of early diagnosis and the small number of cures reflect more adversely upon the doctor previously in charge of the patients than upon the surgeon? Consult the records of Young, Geraghty and Colston of Johns Hopkins, Quinby and Smith of Harvard, Deming of Yale, and many other authorities who are familiar with perineal surgery, for support of Belt's and my attitude toward the treatment of cancer of the prostate. They show operative risks of 4 per cent or less. I know of no publication in support of Bumpus' nihilism, although most urologists, I suspect, practice a similar fatalism—palliation only. Unfortunately, most urologists know nothing about perineal surgery.

Finally, what is accomplished by palliation? (1) X-ray sometimes relieves pain. (2) Radium is a disappointment. (3) Cystotomy is a sign of urologic weakness. (4) Resection removes urinary obstruction, but frequency usually continues, attacks of bleeding are likely to follow, and obstruction commonly recurs. (5) Prostatectomy (partial radical) for urinary obstruction is indicated only when the obstruction is caused by an associated enlargement. It then gives more permanent and greater relief than resection. Whatever method or combination of methods is used, the prolongation of life by palliation has little to commend it either to the public or the profession. At present it is inevitable that palliation in some form be used for the majority. Radical prostatectomy is indicated only when the cancer is so limited that its complete removal seems possible. Naturally, the patient must be in fairly good physical condition. The fact that we see very few patients of this type does not alter the significance of this indication. I am convinced, by reason of my surgical training and urologic experience, that procrastination by the use of palliation is not good practice whenever early cancer is discovered by rectal palpation in a patient otherwise sound who could reasonably withstand surgery.

## SOME INDICATIONS FOR ROENTGEN-RAY TREATMENT

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### PART II\*

#### CHRONIC INFLAMMATIONS

AMONG the chronic inflammations for which roentgenotherapy is indicated are lymphadenitis in any location, and specifically tuberculosis, actinomycosis and blastomycosis. For these conditions larger doses are given, and the treatment is extended over a longer period of time than for acute inflammations. The lymphocytic infiltration in chronic inflammations is not such a prominent feature as in the acute forms; therefore, the mechanism of action of the radiation probably is somewhat different. Considerable connective tissue reaction is present in chronic inflammation, and also usually products of degeneration. Roentgenotherapy will hasten natural reactions and, therefore, shorten convalescence.

On the basis of our experience with the successful roentgen-ray treatment of superficial lymphadenitis, we tried this treatment for patients we had reason to believe had signs and symptoms caused by inflammation and enlargement of the hilar lymph glands. Most of the patients were children who had otherwise unexplainable fever, persistent cough, loss of weight, roentgen evidences of enlarged hilar glands, but without clinical or laboratory evidences of other pathological conditions. Some of them had definite histories of contact with tuberculous indi-

viduals and positive tuberculin reactions; a few had not, but had had previous infections of the upper respiratory tract. Almost every child treated through the mediastinum with small doses of roentgen rays improved promptly, the fever abated, the cough disappeared, and gain in weight and strength soon began. This treatment is not being advocated for pulmonary tuberculosis, but there is no reason why the lymph glands in the mediastinal areas should not become inflamed and cause trouble just as happens in lymph glands in other locations and be just as successfully treated.

It may be said that there are few acute or chronic inflammatory processes that cannot be benefited to some extent by roentgenotherapy, especially if given early. When these conditions are encountered, the tendency is to follow the line of least resistance, to let nature take its course, or follow time-honored procedures. However, in many cases inflammatory processes will be aborted, pain relieved, and the economic usefulness of the patient restored sooner if roentgenotherapy is given promptly.

#### HODGKIN'S DISEASE AND LEUKEMIA

There are some pathologic conditions that have not been proved to be inflammatory or malignant, such as the so-called lymphoblastomas and leukemias. Roentgenotherapy is indicated, and is of benefit in almost every case of this type at some stage in the disease; in fact, it is the only therapeutic procedure that is known to be consistently efficacious.

Hodgkin's disease is a chronic glandular disease which may begin as an acute illness. There often are remissions and exacerbations during its course, but usually it terminates fatally in about three years. Radiologists have differences of opinion about the procedure of treatment of Hodgkin's disease; some advocate irradiation of all gland-bearing areas of the body, whether affected or not, while others direct their attention only to those glands involved. The primary treatment may be fairly intensive, yet should not be too intensive to preclude the possibility of subsequent irradiation for exacerbations which inevitably must develop. There are more and more reports about patients with Hodgkin's disease who have survived five or even more years under treatment, indicating that life is actually prolonged. Of course, all patients have some degree of amelioration of their symptoms, reduction in the enlarged lymph nodes, and extension of their economic usefulness.

The masses of enlarged lymph glands in cases of lymphogenous leukemia disappear with astonishing rapidity, and the abnormal numbers and proportions of white cells in the blood in this disease are brought to normal. Although this disease ultimately is fatal, most patients are made comfortable and their economic usefulness extended. The roentgen-ray treatment should be directed to the affected lymph nodes and spleen, because these structures are primarily affected.

In the myelogenous type of leukemia it is the red bone marrow that suffers damage. The myelocytic series of cells are produced in varying numbers, proportions and stages of maturity, and appear

\* Part I of this paper appeared in the September issue of CALIFORNIA AND WESTERN MEDICINE on page 151.



in the blood until the red bone marrow, from which they originate, becomes infiltrated and can no longer carry on its erythrocytogenic function; therefore, aplastic anemia ensues from which the patient succumbs. Because of the fact that myelogenous leukemia is a disease that primarily and secondarily affects the red marrow, it is advisable to pay no more attention than necessary to concomitant splenomegaly. The spleen should be irradiated only when and if it is causing discomfort. It is not the cause or origin of the disease, nor does irradiation of it reduce the cell count or benefit the patient to any greater extent than treatment of any organ of equal vascularity as, for example, a lung. Therefore especial attention should be given to the red marrow of the ribs, sternum, vertebrae, and ilia. These bones should be irradiated to preserve their erythrocytogenic function as long as possible and thus delay the development of aplastic anemia.

The acute forms of leukemia are not benefited by roentgenotherapy; in fact, the treatment is contraindicated.

Dr. Russell Haden and I have been studying the effect of roentgenotherapy for leukopenic leukemia. Patients with cell counts much less than normal have been treated. The treatment has been given cautiously, supportive measures such as transfusions have been employed, and we have observed no ill effects contrary to opinions and warning in the literature. Rather, many patients have improved and, interestingly enough, a few very low white and red cell counts actually have increased.

#### ENDOCRINE DISTURBANCES

One of the newest and most rapidly developing fields for roentgen-ray treatment is the correction of endocrine disturbances.

Hyperthyroidism has been treated, and whether or not this condition is due to dysfunction of the thyroid gland there can be no doubt that irradiation of this organ brings about definite improvement in a satisfactory proportion of cases just as results from thyroidectomy. There are differences of opinion about the indications for irradiation for hyperthyroidism; but I believe that operations performed by especially skilled surgeons are preferable to irradiation because the hyperthyroid state is more promptly relieved. However, if superior surgery is not available or operations are contra-indicated, then roentgenotherapy should be employed. The tendency at present is to give the primary irradiation much more intensely than formerly, thus relieving the symptoms sooner than results from treatment extended over several months. If adequate irradiation is given and improvement does not follow within a reasonable length of time, operations should be performed. Roentgenotherapy given properly by modern techniques will not make subsequent operation more difficult or hazardous.

Roentgenotherapy offers considerable benefit for certain dysfunctions of the pituitary gland in its relationship to other endocrine glands.

Taking into consideration the embryological derivation, anatomy and histology of the anterior lobe of the pituitary, its normal cellular structures

should be radioresistant. However, functions may be altered without demonstrable changes in histology. Some of the indications for roentgenotherapy in connection with endocrine disturbances will be discussed.

The clinical manifestations of excessive amounts of somatotrophic or growth hormone may become apparent either before or after puberty. The effects of this excess upon growth depend upon the time of life when hyperactivity of the anterior lobe of the pituitary begins. If it begins before puberty, or before the epiphyses have united, then abnormal growth, especially of the long bones, may result in symmetrical gigantism with which hypogonadism frequently is associated. If pituitary hyperactivity of this type begins later in life after epiphyseal closure, then the deforming type of skeletal development takes place, which we call acromegaly; and with which hypogonadism usually is associated, as well as other disturbances attributable to pituitary dysfunction, such as goiter with hyperthyroidism, diabetes mellitus, and arterial hypertension.

Only recently irradiating the hypophyses of children with the clinical manifestations of beginning gigantism has been tried, and although treatment offers promise of benefit, we are not prepared to draw conclusions.

The hypophyses in many cases of acromegaly have been irradiated, and we have come to conclusions which may explain the reasons for what have been interpreted as failures of the treatment that we and others have experienced. When acromegaly is in an inactive stage, and when skeletal abnormalities have become established, the deformities of the bones cannot be corrected. Nevertheless, some patients have derived considerable benefit from treatment, extra-ocular palsies have disappeared, headaches abolished, and sexual potency restored. We have been more fortunate in the treatment of acromegaly in its early stages, and believe that we have prevented the progress of skeletal abnormality, corrected other pituitary dysfunctions, and definitely reduced the size of tumors.

Irradiation of the hypophysis, also, has proved to be of value in the treatment of patients who have evidence that the anterior lobe of the pituitary is secreting excessive amounts of gonadotropic hormone due to gonadal deficiency. Excessive amounts of gonadotropic hormone may be associated also with acromegaly in active stages, Cushing's syndrome, or certain types of pituitary tumors. Roentgenotherapy for these conditions is an attack upon pituitary hyperfunction, which is of a compensatory nature such as occurs at the menopause, after castration, or gonadal damage from other causes.

It is well established that, in human beings, excessive amounts of pituitary gonad-stimulating hormones are present in both the blood and urine of males and females, following gonadal deficiency from many causes. These changes accompany the natural menopause and account for positive reactions in assays for prolan. It has been assumed that, since excessive amounts of gonadotropic hor-

mones are present in the urine under these conditions, it is the excessive prolactin *per se* that is the direct cause of menopausal disturbances. This does not seem logical, because large amounts of prolactin may be present without menopausal disturbances; as, for example, in normal pregnancy, in the presence of hydatiform mole, chorionic epitheliomata, and certain tumors and hyperactive states of the pituitary gland itself. Nevertheless, there is considerable parallelism between the amount of prolactin in the urine and the existence of menopausal disturbances, and they may be reduced effectively by administration of estrin, and a measurable diminution in the amount of urinary prolactin is concomitant with the relief obtained.

When there is an excessive amount of prolactin in the urine in the absence of pregnancy or chorionic tissue, it is presumed to originate from a hyperfunctioning anterior lobe of the pituitary, and represents an excess of the gonadotropic hormone. On this basis it is evident that menopausal disturbances are intimately associated with and probably result from pituitary hyperactivity. Although the mechanism is not clear, the assumption is borne out by the marked improvement that results from roentgen treatment of the hypophysis for menopausal disturbances, whether the symptoms occur naturally or are induced by surgical removal of the gonads, from injury, diseases, or gonadal irradiation. Roentgenotherapy to the hypophysis is especially useful for patients who have been given adequate estrin without relief, or for those who have had repeated recurrences of their disturbances after withdrawal of estrin therapy.

Pituitary hyperfunction also may cause a clinical syndrome which Cushing described and called "pituitary basophilism." The signs and symptoms of this condition will not be described. In some cases, but not all, the condition has been shown to be associated with an increase in the number of basophilic cells in the anterior lobe of the pituitary. It may be that most of the signs and symptoms of Cushing's syndrome are of adrenal origin, because it is well known that adrenal hypertrophy with or without adrenal cortical adenomata is practically a constant finding. That the adrenal may play an important rôle seems particularly plausible because identical clinical manifestations accompany carcinoma and other lesions of the adrenal cortex, and are not associated with increase of the basophilic cellular elements of the pituitary. In spite of good evidence that pituitary basophilism may exist without the clinical manifestations of Cushing's syndrome, it apparently is true that the condition may be attributed to pituitary abnormality in some cases, since most striking benefits often result from roentgen treatment to the hypophysis. In these cases, if the conditions were due to disease primary in the adrenal, the irradiation of the hypophysis could not be so effective.

Bio-assays, such as the Aschheim-Zondek or Friedman test, may be employed to measure any increase in the pituitary gonadotropic hormone, or the amount of prolactin present in the urine which serves as an indication of when the hypophysis

should be irradiated in certain conditions in which there is hyperactivity of the anterior lobe of the pituitary with or without tumor, such as in gonadal deficiencies, acromegaly, and Cushing's syndrome. When excessive amounts of prolactin exist, repeated assays can be used as an index of the degree of depression of the physiologic activity of the pituitary brought about by irradiation. This method may be employed not only to measure the effectiveness of irradiation given for pituitary tumors, but also to give information about the time when excessive glandular activity may recur, thus indicating the necessity for further treatment. Assays of testicular hormone also may be used for men and repeated assays for estrin may be used to advantage for women.

Roentgenotherapy has been found to be particularly efficacious for functional menstrual irregularities which result from ovarian or anterior pituitary lobe dysfunction, and are manifested by amenorrhea or metrorrhagia.

In amenorrhea the menstrual periods sometimes are missed even for months, with a tendency to longer and longer intervals between bleeding or reduced amount of flow with short periods. Apparently both the estrogenic and corpus luteal hormones, which bring about the secretory function of the endometrium, are reduced or lacking. It is thought that the ovary especially is at fault and that this may be due to deficiency in the functions of the anterior lobe of the pituitary. Therefore, two types of amenorrhea are described—the hypopituitary and the hypo-ovarian.

The typical hypopituitary types of individuals are obese, have low metabolic rates, and are sterile. The typical hypo-ovarian types are within normal weight limits, and the basal metabolic rates also are normal, but they are sterile and often complain of many nervous or vasomotor disturbances similar to those of the menopause. However, in milder forms than those that are typical, it may be difficult to distinguish them.

The treatment of these conditions should be carried out under the supervision of a physician familiar with the endocrinological aspects and after complete physical and laboratory examinations, including studies of the endometrium and prolactin and estrogen assays.

For the hypopituitary types, restriction of diet usually is indicated to reduce weight along with administration of thyroid to increase the metabolic rate. When these measures fail, as they may, then small roentgen-ray treatments should be given to the hypophysis.

In the hypo-ovarian type of amenorrhea, the correction of diet and metabolic rate are of minor consideration, because usually there is no indication for interference, but efforts are made to stimulate ovarian activity by various physical methods. Roentgenotherapy in small doses to the ovaries is indicated, and if vasomotor disturbance continues, then the hypophysis may be treated.

It is not at all unusual to have menstrual bleeding take place within a few days after irradiation



of the hypophysis or ovaries for amenorrhea, although when and if ovulation accompanies the bleeding in all cases is doubtful, yet pregnancy may occur promptly in women who have been sterile.

It has been suggested that the small amount of roentgen radiation given in these cases is stimulating. There is no experimental basis for the conclusion. On the other hand, all clinical and laboratory investigations have shown that irradiation is primarily inhibitory, even to the point of complete destruction of cellular function and life. The mechanism of the ovarian or pituitary hormones and their interrelationship are not thoroughly understood. Since all evidence is against the theory that irradiation causes stimulation, it seems most likely that treatment suppresses some hyperactivity, the predominance of which results in hypoactivity of other functions, thus bringing about a return to normal balance.

In the metrorrhagic type of functional menstrual disturbances, the intervals between bleeding are shortened, or they are profuse and prolonged even to the point of continuous bleeding. This condition is thought usually to be due to hyposecretion of only corpus luteal hormones of the ovary; however, there may be an accompanying reduction in urinary excretion of estrogens. Usually metrorrhagia responds to correction of metabolic disturbances, especially of calcium and the administration of pregnancy urine extracts, particularly to young women. However, if bleeding persists, it may be advisable in young women to give very small doses of lightly filtered radium which has a direct effect upon the endometrium without damage to the ovaries. In older women it may be necessary to give sufficient roentgenotherapy to stop menstruation completely.

An interesting metabolic disorder associated with dysfunction of the anterior lobe of the pituitary causes water retention and premenstrual edema. The mechanism has not been satisfactorily explained. Patients with this condition have been normal in weight, but begin to gain suddenly and rapidly for no explainable reason. The weight gain may take place preceding menstruation and be accompanied by severe migraine with evidences of edema of the retina and discs, causing visual disturbances. Proper metabolic measurements will show that it cannot possibly be due to accumulation of fat.

The usual treatment is to begin to restrict the diet very rigidly and to reduce water intake to a minimum. Often remarkable improvement is brought about by intramuscular injections of pregnancy urine extracts and emmenin. But in some cases these measures are unavailing and irradiation then is indicated. For older women approaching the menopause, the quickest and easiest method to correct the difficulty is to stop menstruation by roentgen treatment of the ovaries. Especially grateful are those women who suffer severely from migraine. In young women, irradiation of the hypophysis is beneficial; in fact, often the results are startling. We have seen patients who did not lose weight by diets as low as 500 calories and reduced water intake and who did not respond to

other measures, but lost from ten to twenty pounds within a week or two following moderate irradiation of the pituitary.

It becomes apparent that the best results that are and can be obtained from roentgenotherapy require the closest possible coöperation between physicians and surgeons in all medical specialties and radiologists. The application of roentgenotherapy requires imagination and scientific inquisitiveness, tempered by knowledge of the physical and biological effects of radiation, and of physiology and pathology.

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## CAN CLINICS HELP PRACTITIONERS OF MEDICINE?

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THE answer to this question depends on three considerations: first, the desire of those who operate clinics to help the practicing physician; second, their willingness to do the necessary work to accomplish this desire—for the wish alone is not enough; and third, the eagerness of the practitioner to receive such help.

### THE PROBLEM

In the past, executives and staffs of clinics have had, as their prime and often their only interest, the care of the indigent or near-indigent patient. The latter's problems alone have absorbed their major interests and the funds of the institution. The physician who took care of the patient previously and referred him to the clinic has been dismissed, perhaps with a polite "Thank you." Any interest he had in the patient was ignored. In the practice of medicine, however, a physician often retains his interest in a patient, even though that patient receives attention in a clinic. This interest may be, and often is, a scientific one. Perhaps the disorder is one of particular concern to the physician, who may deeply regret the loss of opportunity to complete the diagnosis and to watch the course. He feels that his chance of following through is likely to be ended, once the patient has become one of the hundreds of clinic "cases." He recognizes that the close and highly desirable doctor-patient relationship is jeopardized. Can we wonder, therefore, that there is often an ill-concealed hostility between the doctors of a community and its clinics?

### THE SOLUTION

What can be done to overcome this attitude? The answer is simple enough. Let clinics be helpful to doctors instead of indifferent or even antagonistic. They can be helpful only by actually seeing the doctor's problems and meeting them fairly. Then, if the desire to be of service to him is present, the rest will be comparatively easy.

### IS APPLICANT ENTITLED TO CARE?

The first means of breaking down disaffection is by asking the physician whether or not, in his judg-

ment, the applicant for entry to the clinic is really entitled to its care? If the applicant lives near by, the inquiry can be made by telephone, especially if the community is comparatively small. The University of California Hospital, however, employs the following letter form:

Dear Doctor:

\_\_\_\_\_ has applied to this Out-Patient Department for medical attention.

From the data given us, it appears that this patient is not able to pay a fee for medical service, and is, therefore, entitled to be admitted to our Out-Patient Department. We should be glad to have your opinion and any information you care to give us, and shall regard both as confidential.

Should you desire to be informed of our findings and treatment, we shall be glad to send them to you upon request. Please refer to Out-Patient Department number in correspondence regarding this patient.

Our Social Service Department gets its best leads from the answers to these letters. They are sent to the doctor whom the patient or his family may have consulted during the preceding ten years. The patient may deny having seen a doctor, but a child under ten, whose birth occasioned the service of a physician, may give a clew and allow a history taker to determine the doctor's name. It is most gratifying that a practitioner seldom objects to the admission of a patient who is really eligible for clinic care.

#### REPORT IS SENT TO THE PHYSICIAN

The next step is to offer to the physician a report of the results of the clinical investigations made. This is frequently of great advantage to him, because clinic patients may call their doctors when illness overtakes them in their homes. Furthermore, the scientific interest mentioned above lies herein. The medical adviser is glad to know the results of the clinical survey that is frequently more comprehensive than that which he himself could make because of the patient's financial limitations. In addition, he knows that the patient may some time become ineligible for further clinic care; some other member of the family may get employment, or the patient himself may get a job after he has recovered from his illness. He may then return to the private practitioner who, with such a résumé, is in much better position to carry on.

#### THE PATIENT'S FINANCIAL PROBLEM

So much for the medical side of the picture. How about the financial problems of the patient, a consideration of which is so important in building up a practice, and in gaining the kindly regard of the community? Let us answer this by citing a hypothetical case: The physician is called to the telephone by a garage owner in whose shop he has his automobile repaired, and whose family he has taken care of for years. He is informed that one of the garage employees, a man who has a wife and a dependent mother, is sick. He is asked to examine the employee. The doctor knows that this man earns little and that he cannot pay for medical advice; nevertheless, he asks that the employee be sent down to his office. A few hours later he realizes that the patient has something more than a casual disorder; he has pain in his right upper quadrant,

with attacks of nausea; in addition, he has obvious nasal polyps; and he has had blood in the stools, which the doctor cannot account for by digital or anoscopic examination. Being a cautious man, he accepts the pointedness of the Hibernianism, "blood in the stools always means cancer until you prove otherwise." So what is he to do? He can prescribe palliatively and observe the patient; but that is poor medical practice and, consequently, repellent to him. To send the man to a roentgenologist, a rhinologist, and a proctologist is beyond the patient's means; he might be able to pay five, ten, or, in extraordinary instances, fifteen dollars for diagnostic procedures, but more than that is quite beyond him. The local county hospital might admit him if a definite diagnosis could be presented. Perhaps the treatment might not require hospitalization and ambulatory care would suffice.

Here is a chance for the well-organized clinic to be helpful. Just one instance of cooperation in such a case as this may overcome the doctor's objections to clinics and their methods.

#### UNIVERSITY HOSPITAL'S APPROACH TO PHYSICIANS IN PRIVATE PRACTICE

About a decade ago the authorities of the University of California Medical School and the University Hospital recognized the validity of the practitioner's right to all the aids that such an institution can give him. They still feel that the School's full duty to the young medical man is not discharged when it graduates him; and, furthermore, they believe that this institution owes a service to all other practitioners in the state, no matter whence they come. In the furtherance of this policy they issued an invitation to all practitioners in the state to this effect:

Send us your problems among patients whose economic status is such that you cannot obtain those aids you require for diagnosis and treatment. Your other patients you will, of course, continue to send to private consultants and laboratories. We recognize that you operate a miniature clinic in your own office; that you see many patients who can never pay you for your services, but whom you expect to care for as a matter of interest or policy. It is with these that we desire to assist you. We shall make a complete investigation. The clinic rate for laboratory or x-ray procedures is, as you know, small. At the conclusion of our investigation we shall send the patient back to you and give you a résumé of our study and suggestions for treatment.

What has been the result of this invitation? The first month we had fewer than forty referred patients; the number is now, per month, about four hundred. If further proof is required, the director has in his desk a folder which contains letters of appreciation from referring doctors—a folder that is already a good volume.

#### HOW THE SYSTEM WORKS

Now let us consider briefly how the system works in this particular institution. The applicant arrives at the information desk of the Social Service Department and presents the letter from his medical adviser. If he comes from out of town, he has usually been informed by his doctor that he must be prepared to remain a few days in the neighborhood of the clinic. The Social Service Department



tells him where he can get a room for as little as 75 cents a day and that there is a cafeteria near by. His social history is taken. (Incidentally, on rare occasions, this investigation reveals financial resources concealed from the referring doctor, whereupon the physician is notified). The patient is then given a numbered clinic card for identification. All the data, including the doctor's letter and reports (the latter are sometimes numerous) are enclosed in the usual type of folder—8 by 11 inches in size—and this is the patient's file. He is then sent to the proper clinic. Most often the General Medical Clinic is selected. Let us follow the routine of a patient going to this clinic.

#### PART TAKEN BY THE FOURTH-YEAR STUDENT

On his arrival in that department he is taken in charge by a fourth-year student, who has had a year and a half's training in examining patients, and has been carefully coached in the best manner of conduct when dealing with referred patients. When I say "taken in charge," I mean just that. The student thenceforth is the key-man. Do patients object? They do not. It has been many months since I have had a patient complain that he had been assigned to a mere medical student who would probably want to "experiment" on him. On the contrary, following the first surprised look as the patient sees the youthful face, he comes to like the situation. Within a few minutes the student has become both friend and guide, and I have had patients return, accompanied by other applicants, asking to see certain "doctors" whom I recognize to be fourth-year students.

Students are assigned only one or, at most, two patients a day. With the carry-over of patients not yet discharged, together with other work incident to the fourth year, they are busy from ten in the forenoon to five or six in the afternoon. They take a complete history, make a physical examination, do the ordinary laboratory procedures themselves, and prepare the case for presentation to the medical consultant to whom they are assigned. (There is one consultant to every four or five students.) The student guides the patient through all the special consultations that may be required; I have seen terrified patients actually being led by their hands to various specialty clinics. In this manner, long before the undergraduate has completed his fourth year, he gets the feel of that human rôle which all good doctors play.

When the study is concluded, and the consultant has outlined treatment (if it appears that the referring doctor so wishes it), what then? The student gives the patient instructions as to his care until he is seen by his family doctor, and bids him good-bye, often with evidences from each of a newly awakened friendship. The patient is also instructed to call on his family doctor within a few days, and is told that a letter will be sent promptly to the doctor, giving all the details of the patient's course in the clinic. A very important part of the student's professional training enters at this point. He must epitomize the case in a comprehensive report, written out by long hand, to the referring doctor. This epitome, in substance, is

revised and approved by the student's consultant, and is thereupon taken to the director's office, where it is further edited and transcribed, signed, and promptly posted. The student's name is put on the file copy of the letter, and the folder is returned to him for final review. In this manner the case is crystallized in his mind, a deep impression is made; he has been taught something of the art of getting along smoothly with his confrères, without which he can never be happy in medicine.

In recent years, many of our graduates have referred their problems to us and sometimes they bring their patients in personally; they tell us how valuable their training was in this respect and how great an aid the referred service is to them now in their practices. This is the answer to the query: Can clinics help practitioners of medicine?

Medical Center.

## THE LURE OF MEDICAL HISTORY†

JOHN TOWNSEND—THE PERIPATETIC  
PIONEER

By FRANCES TOMLINSON GARDNER  
San Francisco

PART II\*

CHOSEN BY LOT

BY lot, three men were chosen to stay at the lake and guard the goods of the others through the winter. They were Joseph Foster, Allen Montgomery, and little Moses Schallenger. All the others, successfully surmounting the immediate barrier, staggered on until they reached the head of the Yuba River. This was all they could do. Animals and men alike gave out. At the head of the Yuba were left the women and children and old man Martin, all in the care of one able-bodied man named Miller, who had a family of his own among them. They had wagons for protection and the oxen for food. They were not too depleted to arrange for themselves, and did not fare as badly through the winter as might have been expected.

The eight remaining men, all young, pushed on through the snowy forest to Johnson's Ranch and Sacramento. Here Townsend was reunited with his wife, who had already arrived with the party of the Tahoe, St. Clair Rancho route. Leaving instructions at Sacramento for a relief party to succor those remaining on the Yuba, these gay young men set off with Captain Sutter to wage war against the Mexican governor, Micheltorena.

The three men left at the lake went hurriedly about the business of making a livable winter camp. Working at top speed they managed, in two days, to construct a cabin, 12 by 14 feet in size and almost 8 feet high. With the cunning of experience they roofed it well with pine brush and rawhide, and

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellaneous department, and its page number will be found on the front cover.

\* For Part I, see September issue, CALIFORNIA AND WESTERN MEDICINE, page 171.

built at one end a spacious western fireplace. Into this building—the same which two years later housed several of the pitiful Donner party—Schallenger moved his silks and satins and his other merchandise. The goods of the rest of the party were massed in one place and covered.

It was their intention to live by hunting; but as time passed it seemed that there would not be enough wild life available to feed three men during the winter. The lake froze so thick that they could not get through the ice to fish. Game disappeared. In a few weeks they made up their minds that, in spite of the valuable cargo of goods to be protected, to escape starvation they must go. They made up small packs for their backs and one cold, clear morning they set out to scramble over the pass to safety. Poor young Schallenger was not equal to the task. On the summit he was attacked by violent cramps, and, realizing that his condition held up and might cause the deaths of the others, he turned around and crept back down the pass to the empty cabin by the big rock. Here, in the face of actual starvation, he was forced to stay, and here he proved that starvation could be conquered by resourcefulness.

Moses Schallenger was only a young boy and he was neither strong nor well. He was entirely alone in a wicked and hostile country. He had no apparent means of livelihood nor hope of it, and yet his seventeen-year-old ingenuity accomplished what, two years later, eighty-four intelligent people of the Donner party were unable to achieve—the feat of keeping himself decently fed, and even warm and comfortable.

In the heaps and piles of goods of the departed emigrants he found some traps left by Captain Stevens. These he placed in various places fairly near to camp. Each trap caught a fox or a wolf, for these animals never stopped their curious investigation of the cabin during the long bitter winter. Foxes were so plentiful that he did not have to resort to wolf meat at all, though he used the pelts for warmth. Thus, never in danger of starvation, though in constant fear of it, the boy kept his vigil beside the lake and waited as patiently as possible for the spring to bring him help.

#### REUNION

When spring came Dennis Martin returned to the Yuba to relieve the party, which he found not only intact but increased by the birth of a little new Murphy. He extended his trip to Truckee Lake to see whether Schallenger had survived the winter. As he crossed the pass and descended, a black moving spot upon the white surface, little Schallenger, pale and thin but well, scrambled up the drifted snow to meet him.

It was still too early to remove the cargo, but plans were made to send a party with wagons back for it. As the snow disappeared this plan was put into execution, but when the empty wagons reached the lake it was apparent that they were too late. The wily, prowling Indians, who all winter had observed this wonderful cache, had seized the opportunity and made off with every box, every chest,

and every bolt of cloth for which Schallenger had all but given his life during the winter. It was plain to be seen that neither Doctor Townsend nor his brother-in-law would turn merchant when they settled in the golden State of California.

#### SUTTER CAMPAIGN—MICHELTORRENA

While this drama was going on in the white depths of the mountains, Townsend, in characteristic fashion, was pursuing the uncertain joys of adventure. The Sutter campaign against Micheltorena was very opera bouffe, and consisted largely of skirmishes and unfought battles. Townsend, as assistant surgeon, was seldom embroiled in anything more stirring than a saber wound or two and some fever cases; and when the inevitable conclusion was reached he returned to civilization rather prepared to become a solid citizen and to leave the adventuring to the younger generation. He found himself a home in Monterey, where he was soon joined by his wife and Schallenger, and started a practice.

#### JAMES CLYMAN: ON DOCTOR TOWNSEND

This spirit of repose lasted only a few months, during which he was called upon by James Clyman, who, with poor grammar but piercing perception, has left the clearest picture to be had of Doctor Townsend's personality. Said Clyman: "we rode to Dr. Townsends [John Townsend] an amercans who came from the States by land last season where we put up found the Dr. a good feeling man much attached to his own oppinions as likiwise to the climate and country of California. his [wife] a pleasant lady does not enter into all her husbands chimerical speculations. . . ."

#### DOCTOR TOWNSEND AND MONTEREY

The end of 1845 found Doctor Townsend very tired of Monterey and its quiet and sleepy air, and he packed up his unprotesting and patient wife and moved to the minute settlement of Yerba Buena on San Francisco Bay. In the vast and empty sand dunes of the tiny village he selected a fifty-vara lot, considerably out of town to the south. Here on the south side of California Street between Montgomery and Sansome streets, he built his house. This he used for home and office as long as he lived in the muddy, ugly duckling that was then Yerba Buena. After his departure the building disappeared, and in its place now stands the Merchants' Exchange.

(To be continued)

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*Climate in Tuberculosis Treatment.*—There are various conceptions as to what constitutes an ideal climate for the treatment of tuberculosis, but several authorities agree that certain climates are beneficial only to the extent that they permit patients to spend a maximum number of hours comfortably out of doors. A regimen of regulated rest and exercise, proper food and open-air life, is considered to be the fundamental essential in the treatment of tuberculosis, and the part played by climate is believed to be subservient to the other more important considerations.—I. M. Moriyama and L. P. Harrington, *Amer. Rev. of Tuber.*, March, 1939.



## CLINICAL NOTES AND CASE REPORTS

### PRINCIPLES IN ALLERGY PRACTICE

By JULIAN COHN, M.D.  
*Los Angeles*

THE allergic problems confronting the general practitioner are varied. Some problems are of classification, some are of differential diagnosis, *i. e.*, specific as to allergic or nonallergic conditions, specific as to cause when determined by skin tests. Problems also exist of therapy and the causes of some therapy failures.

The coining of the word "allergy" by Von Pirquet drove a wedge into a field entirely new. The word means a reactivity altered from the normal. In 1906 Wolff-Eisner,<sup>1</sup> and in 1910 Meltzer,<sup>2</sup> drew the attention of the profession to the similarity between anaphylactic shock in animals and asthma in man; and they expressed the belief that the two phenomena were based upon a similar immunologic mechanism.

This attitude gained acceptance so quickly that any unexplained phenomenon was considered anaphylactic; and it has taken years of research to separate the allergies in man, which may be anaphylactic in some instances, from the allergies in animals, which are anaphylactic in all instances.

There is one aspect of this problem that should be clear in the minds of all medical men. There are two forms of allergy in man,<sup>3</sup> and the physician should be able to recognize the forms which they assume.

#### VARIETIES

We speak first of the "normal" allergies. They are, first, the contact dermatoses, dermatitis venenata, due to poison, etc.; second, serum-sickness; and third, hypersensitiveness to infections. These are called "normal," because they are readily inducible in the majority of people, sufficient contact and a suitable incubation period being all that is required. For instance, 60 per cent of all people will show poison oak dermatitis under the proper conditions, while with serum-sickness a small per cent will react to a second or even a first prophylactic dose of serum; but when 100 or 200 cubic centimeters are given intravenously, 90 per cent will manifest the disease within five to ten days after injection.

These figures are in marked contrast to the "abnormal" allergies, the second form of allergy in man, which we recognize clinically as the asthma-hay fever-urticaria complex. With these, 7 to 10 per cent of the population are affected. While the other forms just described are readily inducible, the symptoms of the asthma-hay fever group cannot be induced in any, but has as its basis a predisposition through inheritance.

The "abnormal" allergies are divided into two classes: The atopic or skin-sensitive group and the nonsensitive-skin group. Though it is confusing to the general practitioner to refer in this way to them, the allergist does. The atopic group are those individuals who give skin reactions, for these patients have in their blood a peculiar type of antibody that is different from all other known antibodies, both in behavior and in properties. Those who give no reactions to any antigen are referred to as the nonsensitive skin group, and are seen most frequently in those whose asthma begins after they have passed the fortieth year.

Considering the allergies generally from the viewpoint of etiology, we must bear in mind that almost anything may cause any one of the symptom-complexes, though without skin reactions the treatment in the hands of many has been a futile one. It happens that allergists themselves sometimes fail. At times the diagnosis of the specific factors can be made without skin tests, if the history is searching enough.

To set down a description of the allergies in a short epitome besets the allergist at every turn with its futility, because any one phase of it deserves all the importance that can be given to it. But there are some points about diagnosis that deserve emphasis. Those who seek to treat these cases should avail themselves of all the information they can obtain concerning the methods of diagnosis. Unless this is done, failures will be many, and those patients treated unsuccessfully will give up in disgust rather than seek advice from those in the profession who have fortified themselves with all the information that they can gather.

#### DIAGNOSIS

Specific diagnosis is reached through several methods of approach, and there are two methods in common use. The scratch tests are used most commonly by the general practitioner. This method is safer to use and less expensive to him; it is more sloppy, inconvenient, and less sensitive. The number of positive diagnoses will vary between 20 and 35 per cent. The second method, the intracutaneous, to be done properly requires refrigeration facilities, 75 to 100 syringes and needles, and trays for vials. It is considerably more expensive, but much more sensitive. Because of the increased sensitiveness of the method, its use involves great potential danger. Severe constitutional reactions may result, even death, unless one knows what he is doing. Being more sensitive, the number of diagnoses is about 70 per cent.

These improvements in diagnosis—that is, the intracutaneous over the scratch—is in keeping with refinements in every branch of medicine, and make the difference between success or failure in borderline cases.

There is no branch of allergy that can be said to be easy of treatment. The exceptional case of asthma or hay fever, where lasting results obtain from some form of unusual therapy, should not give one the feeling of optimism. These cases may surprise one suddenly by a recrudescence that will

<sup>1</sup> Wolff-Eisner, A.: *Das Heufieber*, Muenchen, 1906.

<sup>2</sup> Meltzer, S. J.: *Tr. A. Am. Phys.*, 25:16, 1910, and *J. A. M. A.*, 55:102, 1910.

<sup>3</sup> Cooke, R. A.: *J. A. M. A.*, Vol. 9, No. 102, p. 664 (March 3), 1934.

resist treatment. Reports of startling results by other than specific treatment should be viewed with skepticism, for it often happens that these enthusiastic writers never report their later failures.

Lasting results should be promised no one. It can be seen readily why this is so when allergy is regarded on a hereditary basis, and when the peculiar antibodies are encountered these patients never lose them without treatment. As Vander Veer<sup>4</sup> has said, "as a diabetic is potentially a diabetic all his life, even though his urine may be sugar-free, so allergic individuals are potentially sufferers during their life even though they may be symptom-free."

Any one of the antigens may cause any one or more of the symptom-complexes. Pollens cause seasonal hay fever, but 60 per cent<sup>5</sup> of the untreated cases will develop asthma, dependent first on pollens and aggravated later by other allergens. Pollens also cause urticaria, and the oil of pollen causes seasonal eczema; and pollen at that time of the year may aggravate a food or inhalant sensitiveness. In this manner the hay fever will be worse, and no amount of pollen therapy affords relief until the food or inhalant is eliminated during that period. Sometimes elimination of the food or inhalant is all that is required for complete relief.<sup>6</sup> One must be careful of dosage, for each case is a law unto itself. Systemic reactions must be avoided or the cure will be worse than the disease.

Foods cause any variety of symptom-complexes. Besides those mentioned they cause mucous colitis, essential hematuria, enuresis, migraine, Henoch's purpura, gastro-intestinal disturbances, angioneurotic edema, perhaps intermittent hydroarthrosis, vasomotor rhinitis or perennial hay fever, erroneously called hyperesthetic rhinitis.

The part that drugs play in causing symptoms is too well known. A word of caution, therefore, in reference to acetyl-salicylic acid should be mentioned. A few deaths have been reported from its use.

619 South Bonnie Brae.

## TRICHINELLIASIS AND CARNIVOROUS MAMMALS (BEARS)\*

REPORT OF SEVEN CASES FROM BEAR MEAT

By J. C. GEIGER, M.D.

AND

M. HOBMAIER, M.D.

San Francisco

IT is well known that in North America trichinelliasis in the human arises mainly as a result of the consumption of improperly prepared pork or pork food products infected with living trichi-

nellae. However, there are several other mammals, both domestic and wild, which are definitely susceptible to the infection. This group includes the following: rats, hogs which have grown wild, the original wild hog, domestic dogs and cats, foxes, coyotes, badgers, wild species of cats, and certain species of ferrets and bears.

Because of the inquisitive nature of some people in wishing to enjoy the experiment of trying new foods, it is not an infrequent occurrence to find some of the meat foods from domestic and wild animal life listed above as a part of the diet on certain occasions. Many people consider bear steaks a particular delicacy. Both bears kept in activity and those in their native habitat show a definite heavy infection with trichinelliasis. This was confirmed recently in San Francisco after examination of the carcasses of two bears, one aged twenty-one years, and the other eighteen months. The laboratory reports on these two bears from a local park, as well as the report on specimens of bear meat brought in from mountain areas, have shown a definite involvement with trichinellae.

The consumption of improperly prepared bear meat has resulted in a number of cases of trichinelliasis in man. In Europe, epidemics have frequently been observed resulting from the consumption of bear ham. In this country the main source has been the eating of improperly cooked bear meat or the consumption of dried or jerked bear meat.

A brief résumé of several recent cases of trichinelliasis arising from consumption of bear meat follows:

### REPORT OF CASES

*Outbreak No. 1. April, 1930:* Four cases and two deaths were reported from Trinity County, California. All became ill following consumption of jerked bear meat. The particular specimen was a black bear four years old, and was reported to have raided hog ranches in the area. An examination, made in the Hooper Foundation for Medical Research, of meat from this bear was positive for trichinellae.

1 1 1

*Outbreak No. 2. October, 1931:* In this second outbreak there were eighteen cases, with one death, reported from Vallejo, California, and vicinity. Again, the causative meat was bear meat from a bear killed in Trinity County, California. Some of the meat was consumed fresh, and some of it jerked. Portions of this meat were sent to Dr. K. F. Meyer of the Hooper Foundation and were reported positive for trichinellae. This outbreak was later reported by Dr. Albert Walker.<sup>1</sup>

1 1 1

*Outbreak No. 3. October 17, 1931:* In this outbreak a family of five, resident in San Francisco, consumed jerked bear meat, resulting in trichinelliasis in all five members. The San Francisco Department of Public Health laboratory reported positive findings for trichinellae on samples of the jerked bear meat.

1 1 1

*Outbreak No. 4. November, 1935:* In this episode, six people ate bear steaks from meat previously dried. The two individuals who consumed their steak cooked rare, came down with trichinelliasis; whereas those who ate steaks thoroughly cooked did not show any symptoms. This outbreak occurred in the family of a physician in San Francisco.

<sup>4</sup> Vander Veer, A.: Am. J. Med. Sc., Vol. 164, No. 1, p. 97, (July), 1922.

<sup>5</sup> Balyeat, R. M.: Allergic Diseases. Third edition. Philadelphia: F. A. Davis & Co., 1930.

<sup>6</sup> Eyerman, Charles H.: J. Mi. St. Med. Assn., pp. 191-194 (May), 1931.

\* From the Department of Public Health, San Francisco, and Hooper Foundation of Medical Research of University of California, San Francisco.



## COMMENT

The cases cited above accurately demonstrate the need for applying the same rules, regarding the prevention of trichinelliasis in pork and pork food products, to the consumption of bear meat and bear meat products. Particularly, it should be stressed that dried or jerked bear meat, unless thoroughly cooked, may be a very potent source of trichinelliasis.

In an attempt to break up the chain of infection resulting in trichinelliasis in man, it is important to point out that zoölogical gardens must be properly regulated regarding the disposal of the carcasses of the carnivorous animals living in the zoo. It is definitely a matter of record that these carcasses have at times been fed to hogs. As a further control, taxidermists should be warned in regard to the proper disposal of skin muscles on the hides from carnivorous animals coming from the zoos.

A very common possible source of trichinella-infected meat is also to be found among dogs and cats.

It is estimated that from 10 to 30 per cent of these mammals are infected with trichinellae. In San Francisco the proper disposal of the carcasses of these animals is available through official sources approved by the Department of Public Health. Each year, in San Francisco, the disposal of over ten thousand such carcasses is satisfactorily accomplished. Owners of dogs and cats should likewise be informed of the need of refraining from feeding raw pork or pork food products or the raw meat from wild animals to dogs and cats.

The eradication of rats in cities is an important step in the program for the control of trichinelliasis, which is well recognized. The proper disposal, however, of the carcasses of rodents trapped and poisoned is sometimes neglected. Disposal by incineration is the proper and most acceptable method.

## SUMMARY

Trichinelliasis in man is a disease chiefly, but not exclusively, connected with consumption of trichinella-infected pork. Severe outbreaks have been observed following consumption of bear meat. It is essential to treat bear meat according to the rules applied in the consumption of pork.

If we consider trichinelliasis as a sanitary problem, the assistance of the Public Health Officer of the city is limited to measures for proper disposal of garbage, of carcasses of flesh- and carcass-feeding animals (including disposal of dogs and cats), regulations for zoölogical gardens, taxidermists, and proper destruction and disposal of rodents.

The above basic measures may help greatly to reduce trichinelliasis in pork and its food products, but only when derived from hogs raised on food sources of known origin. Trichinelliasis may become completely eradicated only if these measures are applied throughout each state of the United States.

## CONCLUSIONS

The following suggestions are presented to supplement existing measures for the control of trichinelliasis:

1. No fresh carcass of any flesh- or carcass-feeding mammals (including cats and dogs), or portions thereof, should be fed to any mammal of the zoölogical garden. Special attention should be given garbage containing scraps of raw pork.

2. Carcasses of diseased flesh- or carcass-feeding mammals should be carefully protected from access of rodents prior to incineration.

3. All carcasses and portions or carcasses of flesh- or carcass-feeding mammals so far acquired by taxidermists should likewise be carefully collected, protected from rodents, and incinerated.

4. No restaurant or public eating place should offer to the customer, without proper designation, food containing meat of any flesh- or carcass-eating mammal. Meat of this origin should be treated according to the rules applied for safe treatment of pork.

5. Bear hunters should be warned to prepare bear meat for human consumption in every respect as carefully as is done with pork. Also, it is well to remember that hunting dogs are as susceptible to trichinella infections as man.

6. Feeding of fresh carcasses of flesh- or carcass-feeding mammals (including dogs and cats), or parts of them, to hogs may cause trichinelliasis.

7. If dogs and cats should be fed raw meat, the source should be from plant-feeding animals only. If dogs or cats are to be destroyed, it is highly recommended that this be done under supervision of the Department of Public Health.

8. Carcasses of rats should be incinerated. To throw them in garbage cans may result in propagation of trichinellae.

9. Rat-proof construction of buildings and sanitary management of establishments to exterminate rats are everywhere of great importance and fully indispensable as a health department procedure.

101 Grove Street.  
Hooper Foundation for Medical Research.



Fig. 1.—Stenosis of the mouth due to self-application of "cancer paste." (Note.—This illustration is referred to in the Bedside Medicine Symposium in this issue (discussion of Samuel Ayres, Jr., M. D., on page 251.)

# BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

## OVERTREATMENT IN DERMATOLOGY

HIRAM E. MILLER, M. D. (384 Post Street, San Francisco).—If a little is good, more is better, is an adage often followed in dermatologic therapeutics. If a 5 per cent ointment will cure an eruption, a 10 per cent preparation is used to make doubly certain of the result. The correct dosage of a drug to be taken internally is strictly adhered to, but there is a general feeling that dosage is not of importance if the preparation is to be applied to the skin.

Many skin eruptions are due to external irritants or internal toxins. A dermatitis develops because the skin cannot tolerate the onslaught from without or from within. If strong applications are applied to the already damaged skin, the dermatitis will become more severe and extensive.

Cutaneous infections, whether they are bacterial or mycotic, will often clear under the use of mild remedies. If the same preparations are given in a more concentrated form they may irritate the skin, thus lowering its resistance and permitting the spread of the infection.

The skin of patients with auburn or blonde hair is always very sensitive. A certain strength of a drug may cure a condition in a brunette, but when the same product is prescribed for a blonde it will cause irritation. A remedy may be well tolerated on one part of the body, but when it is applied elsewhere it may be irritating. A 10 per cent ammoniate of mercury may be beneficial on the scalp, but when administered to the side of the neck it will cause trouble.

The strength of many of our official ointments should be changed. The standard 10 per cent ammoniate of mercury and the 10 and 15 per cent sulphur ointments are irritating in most instances and should never be used. Three or four per cent will accomplish the desired result without irritation. Many proprietary or patent remedies are also too strong. If such remedies were soothing, they would at least have the attribute of not causing trouble. Whitfield's ointment, with 6 per cent salicylic acid and 12 per cent benzoic acid, as put out by drug companies, is irritating to many patients. The same preparation of one-half or one-third this strength would accomplish the desired result without irritation.

Overtreatment of skin eruptions is frequently observed. A comparatively large number of patients in routine dermatologic practice are forced to seek treatment because of irritation from remedies applied and not due to their primary complaint. If calamin lotion or boric acid compresses were applied when there was some doubt about diagnosis or treatment, the eruption would, in many instances, clear spontaneously.

SAMUEL AYRES, JR., M.D. (2007 Wilshire Boulevard, Los Angeles).—The problem of overtreatment in dermatology is somewhat complex and can best be discussed under four headings:

1. Excessive or improper application of an appropriate remedy.
2. Improper medication due to an error in diagnosis, or to ignorance of the problem involved.
3. Idiosyncrasy or hypersensitivity of the patient to an appropriate remedy.
4. Self-medication without a diagnosis.

### *Excessive or Improper Application of an Appropriate Remedy.*

The first step in the treatment of any disease, whether involving the skin or any other portion of the body, is obviously a correct diagnosis. Granted that a correct diagnosis has been made and an appropriate remedy has been prescribed, several factors may prevent a successful outcome and lead to the distressing clinical picture of "overtreatment."

It is important that the patient be given explicit instructions for the carrying out of the treatment, and it is equally important that he coöperate in the program. In the one case responsibility for overtreatment will rest upon the physician; in the other it will rest upon the patient.

For instance, a diagnosis of scabies has been made upon clinical grounds and confirmed microscopically by finding *acarus scabiei* in the shavings from a burrow or vesicle on the hand. An appropriate compound sulphur ointment is then prescribed, but the patient is not given explicit directions for its use. A doctor may tell him to apply it to the "affected parts," or to use it every night until the condition is relieved, or may fail to impress upon the patient the importance of returning for observation within a week. Or the patient may misinterpret the directions or may decide on his own account that, as long as he continues to itch, he should continue to apply his ointment, failing to realize that effective antiparasitic sulphur applications may of themselves cause itching. I have encountered patients who have thus gotten into vicious circles, beginning with scabies, then developing an itching and a mild dermatitis from the use of a perfectly proper ointment; then, believing themselves to be still infected, using more and stronger applications, with an ever increasing itching and dermatitis long after all parasites have been eliminated. In one extreme instance of this sort, a woman consulted me who had gotten into such a vicious circle, and for a period of several years had spent the greater part of her entire time fighting parasites which had long ceased to exist—boiling, fumigating and otherwise sterilizing, every week, her clothing, bedding, and even mattresses. Her skin presented a diffuse erythematous, excori-



ated and eczematized appearance. When finally convinced of the nature of her trouble, the dermatitis was cleared up within several weeks under nothing but applications of cocoa butter and a bland shake lotion.

Another example of "overtreatment" due to the improper application of an appropriate remedy is in the use of crude coal-tar ointments. Crude coal tar has the property of sensitizing the skin to sunlight, and patients should be cautioned against exposing their skins to the sun immediately after the use or even after the complete removal of coal-tar ointment, especially in eczematous eruptions. This photosensitizing property of crude coal tar is sometimes made use of in the treatment of psoriasis, but it is distinctly contra-indicated in eczema and may lead to unpleasant inflammatory reactions.

The most serious consequences of the excessive or improper use of an appropriate remedy are seen in the unfortunate case of x-ray sequelae. Fractional doses of x-ray, repeated over too long a time, or one or more large doses of x-ray improperly administered, may result in chronic x-ray dermatitis with atrophic changes, and ultimately in malignant degeneration which may end fatally. There is no excuse whatever for such results, inasmuch as modern x-ray equipment is highly standardized, and qualified dermatologists are familiar with the proper technique for cutaneous therapy, which is of great value in many dermatological problems.

*Improper Medication Due to an Error in Diagnosis, or to Ignorance of the Problems Involved.*

As mentioned before, there is no substitute for a diagnosis. Possibly because skin eruptions are so apparent and look so easy in contrast with other more obscure and hidden clinical manifestations, the general practitioner is often tempted to try something for a few visits even without establishing a diagnosis. The unfortunate consequences of this practice are seen every day by the dermatologist in cases of severe eczematous dermatitis, often complicated by secondary infection. At the present time "fungous infection" is a popular diagnosis, and any eruption on the hands or feet is more often than not put down as a case of ringworm or fungous infection, and treated accordingly. A diagnosis of fungous infection is not always an easy one to make on clinical grounds alone. I, personally, have never been willing to make a diagnosis of fungous infection unless I have demonstrated the organism microscopically, and I might add that it requires some little experience before one is qualified to interpret such laboratory findings. Since contact dermatitis, eczema, toxic eruptions, psoriasis, and a number of other dermatoses may affect the hands or feet, and since the remedies usually prescribed for fungous infections are by nature more or less irritating, it is not surprising that the picture of overtreatment or, more properly, "improper treatment," is frequently encountered, especially in cases of hand and foot eruptions.

Another frequent example of this type of overtreatment is pruritus hiemalis, or "winter itch"—a mild, chapped-looking dermatitis usually involving the legs and usually seen in elderly people. The eruption is due to a drying of the skin from a combination of old age with diminished oil secretion,

cool, dry weather and frequent baths, often with strong soap. This eruption often tends to form ring-like patterns, and is, therefore, frequently misdiagnosed as ringworm. Strong fungicidal remedies, which are too often prescribed, cause a marked exacerbation of symptoms and may result in a severe eczematous eruption requiring weeks to control.

Ignorance of some of the technical problems involved may lead to severe dermatitis, as in the use of ultra-violet light for the treatment of such conditions as lupus erythematosus, erythema multiforme, etc., which are by nature photosensitive, or in using chrysarobin or other irritating applications in the cases of acute psoriasis where a generalized exfoliative dermatitis may be induced.

Numerous other examples could be cited of overtreatment under this heading.

*Idiosyncrasy or Hypersensitivity of the Patient to an Appropriate Remedy.*

A common cause of failure in the treatment of skin disorders is an intolerance to the medication which under ordinary circumstances would have been a proper application. Mercury, anesthetic ointments, butescin picrate, hexylresorcinol, and certain tar preparations are among the more common offenders. Before any preparations containing these substances are prescribed, patch tests should be performed to determine whether the patient is sensitive to the proposed remedy. The dermatologist not infrequently encounters severe cases of pruritus ani, with an extensive inflammatory reaction, consisting of swelling, oozing and vesiculation in which, on analysis, it is found that nine-tenths of the discomfort is due to some anesthetic ointment which the patient has been using, and one-tenth to the underlying pathology.

*Self-Medication without a Diagnosis.*

Attempts on the part of patients to treat minor traumatic lesions or trivial skin eruptions without benefit of diagnosis or doctor, often lead to serious complications. The layman's idea of applying something strong enough to "kill the germs" prompts him to apply irritating chemicals containing chlorin or phenol derivatives, or iodine or some proprietary remedy which he has seen advertised, or which was recommended by a friend or by a druggist. Some of these proprietary remedies irritate with such surprising regularity that one wonders how they can continue to find a market. The theory that if some is good, more is better usually produces the picture of eczematous dermatitis characteristic of overtreatment. This may also be produced by certain combinations of substances, such as application of iodine followed by ammoniated mercury ointment; leading, perhaps, to the formation of mercuric iodide, which is a powerful irritant.

One of the most remarkable cases of overtreatment due to self-medication without a diagnosis which I have ever seen was the case of the wife of a druggist. She developed a sore on her lip and decided that it was a cancer. She then applied a "cancer paste" of secret composition, which resulted in a large slough and apparently healed with some keloid formation. Interpreting the keloid as a recurrence of the cancer, the patient applied more

of the paste, with more sloughing, more keloid formation, and so on in a vicious circle; and when I saw her the mouth was almost completely stenosed by keloidal tissue, the opening being barely larger than enough to admit a lead pencil. No sign of cancer was visible anywhere and, judging from the history, there probably never had been a cancer.\*

\* \* \*

HARRY E. ALDERSON, M. D. (490 Post Street, San Francisco).—"If the medical profession generally and the sick public (dermatologically speaking) would realize that overzealous treatment prolongs disease, dermatologists would not have so much to do." These were my introductory remarks to an article on this subject, contributed to *CALIFORNIA AND WESTERN MEDICINE* for October, 1929. This is even more true today, with the great increase in industrial work, and the growth of various health-service organizations. Certainly insurance companies and other corporations might save themselves much expense and trouble if they would refer their dermatologic cases in the beginning to a competent specialist.

A long chapter could be written about overtreatment and unnecessary treatment with the *x-ray*. Chronic recurring itching dermatoses, like pruritus ani, lichen simplex chronicus, and even epidermophytosis and acne, only too often receive excessive radiation therapy when other safer measures would be effective. These patients frequently travel around from office to office, and they do not always see dermatologists. Sooner or later they receive roentgen treatment, and the temporary relief obtained encourages them to seek the same wherever they may be, not realizing that these effects are cumulative and eventually may result in atrophy, telangiectasie, keratoses, and other more serious complications. These wandering patients frequently get into trouble because they do not tell their new consultant that they have had *x-ray* therapy. No competent dermatologist would undertake to give this kind of treatment without first finding out all about the previous therapy, dosage and dates of the same, and reliability of the previous operators. I regret to state, however, that there are some who will take a chance, and that there are *x-ray* laboratories where treatment is given indiscriminately to all dermatologic patients who may call. Every dermatologist sees too many patients presenting the sad, late effects of injudicious therapy of this sort—atrophy with fine wrinkling of the skin, telangiectasie and keratoses, some of the latter becoming malignant. A moderate amount of roentgen therapy, of course, is useful.

There is a widespread tendency to use too strong preparations. Both the physician and the layman only too often assume, with disastrous results, that a 10 per cent preparation is ten times better than a 1 per cent one. In the treatment of impetigo, for instance, this idea is carried out when a 3 per cent preparation would do very well. The stronger salve is irritating to the skin and defeats its purpose by lowering the local resistance. This is particularly true in the case of children and others with thin or otherwise vulnerable skins.

*Epidermophytosis*, or "*athlete's foot*," a very prevalent condition, often becomes aggravated or complicated by overtreatment, and by overlooking the fact that constitutional conditions, in addition to the local lesions, have to be cared for. This is too long a story to be discussed here, but suffice it to state that the development of an acute inflammatory process calls for the discontinuance of the treatment then being carried out. Absolute rest, the use of Burrow's solution compresses (1 to 16 or 32), and a soaking twice daily in weak potassium permanganate solutions for a few days, will bring the condition back to the starting point. Then more active therapy can be tried cautiously. There is no trouble that taxes one's skill and resourcefulness more than this disease. So it is no wonder that laymen and others so often get into difficulties. One's weapons have to be changed to meet changing conditions, and epidermophytosis has several phases that call for entirely different therapeutic agents. Keratolytics, like salicylic acid, are needed to remove epidermis; and when that purpose is served, continuing the use of the drug will make the condition worse. Salicylic acid should never be used on a raw, denuded surface. As many proprietary "remedies" contain salicylic acid, and they are often used throughout the course of the disease, it is easy to see why one is often disappointed in his therapy. Fungicides, in varying strengths and combinations are indicated at all times, but there is no set formula that will continue being useful and not harmful in any case. Keratoplastic agents, like tar and sulphur, are quite valuable at the right time, but used at the wrong time and in too great strength will do great damage. There is no single combination of drugs that will carry one through to the successful termination of a case.

*Scabies* is another common condition that is often overtreated. So many victims make wrong diagnoses, and by the time they finally reach a physician they are suffering from severe dermatitis venenata due mainly to the misuse of sulphur. Patients who really have scabies and treat themselves are almost certain to develop sulphur dermatitis or other complications.

*Sun bathing* is of benefit to many people; but nowadays it is often overdone and the end-results are sometimes most undesirable. Naturally blondes, not having the protection of pigment and a thick epidermis, more often show the deleterious effects of too much sun exposure. Individuals suffering from vitamin deficiency (pellagrins), or those taking certain drugs (sulfanilamide, gold, various dyes, etc.), being solar sensitive, do not respond well to sun bathing. Most sun bathers, if they are not careful, sooner or later will develop dry, "weather-beaten" skins, and eventually keratoses will appear. Furthermore, the hair will become dry, bleached and brittle, and will tend to stop growing. For most brunettes fifteen minutes' daily exposure of each surface will suffice and probably will not be harmful.

I do not know what my colleagues who are writing on this subject may say.

However, if there is repetition it will do no harm, because warnings against overtreatment cannot be overemphasized.

\* For illustration of case here referred to, see in Case Reports department, on page 250, in this issue.



# CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

## CALIFORNIA MEDICAL ASSOCIATION†

CHARLES A. DUKES.....President  
HARRY H. WILSON.....President-Elect  
LOWELL S. GOIN.....Speaker  
KARL L. SCHAUPP.....Council Chairman  
GEORGE H. KRESS.....Secretary and Editor

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2. *Committee on Public Health Education.*
3. *California Physicians' Service.*
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6. *Nevada Medical Association.*

## C. M. A. DEPARTMENT OF PUBLIC RELATIONS\*

### COMMITTEE ON PUBLIC RELATIONS

#### A Digest of the Minutes of the Meeting Held on August 27, 1939

The meeting was held in the office of the Association, Room 2004, Four Fifty Sutter Building, San Francisco, on Sunday August 27, 1939.

#### 1. Call to Order.

Meeting was called to order at 9:00 a. m. by Chairman George G. Reinle, with the following members present: President Charles A. Dukes, and the following chairmen of committees: Roy E. Thomas, Committee on Health and Public Instruction; J. Norman O'Neill, Committee on Hospitals, Dispensaries, and Clinics; Donald Cass, Committee on Industrial Practice; George D. Maner, Committee on Membership and Organization; Dwight L. Wilbur, Committee on Postgraduate Activities; George G. Reinle, Committee on Medical Defense; and George H. Kress, Association Secretary.

By invitation: General Counsel Hartley F. Peart.

#### 2. Minutes of Last Meeting.

The minutes of the meeting of the Committee on Public Relations held on July 22, 1939, on motion duly made and seconded, were approved.

#### 3. Draft of a Basic Science Law.

Consideration was then had of the proposed basic science act of California. The report thereon was made by Dr. Dwight Wilbur, who presented the draft that had been pre-

pared by Legal Counsel Hartley F. Peart, in which had been incorporated the provisions previously discussed by the Committee on Public Relations.

In the discussion which followed, special notation was made of the following items:

(Minutes mention twenty items to be reconsidered by the Legal Counsel in the preparation of the second draft.)

#### 4. Chiropractic Initiative.

The chiropractic initiative, Proposition No. 2, which will have a place on the November 7, 1939, ballot was discussed.

#### 5. Prenatal and Premarital Laws.

Dr. Roy Thomas read an opinion from Mr. Peart concerning the prenatal and premarital laws. It was thought that this was desirable publicity in which members of the California Medical Association should be interested. (Was printed in September issue of CALIFORNIA AND WESTERN MEDICINE, on page 200.)

Editor Kress stated that the two laws were printed in the July issue of CALIFORNIA AND WESTERN MEDICINE (page 71), and that a clarifying bulletin had appeared on page 139 of the August number. Also, that additional comment and bulletins would be given place in the September issue. (On pages 208-209.)

#### 6. State and County Fair Exhibits.

The subject of exhibits at state and county fairs was discussed. The Committee felt that such exhibits were desirable. Dr. Dwight Wilbur was appointed to look into the matter of securing some of the exhibit material at the Golden Gate Exposition. The Association Secretary suggested that he consult with Dr. Chauncey Leake.

For Southern California, Doctor O'Neill was to investigate the subject of public health exhibits through the Los Angeles City and County Health Department.

It was agreed that at the next meeting of the Committee, to be held September 23, Mr. Marshall and Mr. Read should be invited to attend.

7. It was voted that the next meeting shall be held on Saturday, September 23, in the California Medical Association's central office.

Subject of special discussion to be basic science law and medical and malpractice defense.

GEORGE G. REINLE, *Chairman.*

GEORGE H. KRESS, *Secretary.*

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#### Minutes of the Meeting Held on September 23, 1939

The meeting was held in the office of the Association, Room 2004, Four Fifty Sutter Street, San Francisco, on Saturday, September 23, 1939, at 9:30 a. m.

#### 1. Call to Order.

The meeting was called to order at 9:30 a. m. by Chairman George G. Reinle, with the following members present: President Charles A. Dukes; Chairmen of Committees: J. Norman O'Neill, Committee on Hospitals, Dispensaries, and Clinics; Donald Cass, Committee on Industrial Practice; George D. Maner, Committee on Membership and Organization; Dwight L. Wilbur, Com-

† For complete roster of officers, see advertising pages 2, 4, and 6.

\* The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman, and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter, San Francisco.

mittee on Postgraduate Activities; George G. Reinle, Committee on Medical Defense; and George H. Kress, Association Secretary.

By invitation: Mr. Hartley F. Peart and Mr. Howard Hassard, legal counsel; Mr. Ben Read, Public Health League of California; Mr. Ross Marshall, Public Relations Counsel of the Committee on Public Health Education.

## 2. Minutes.

The minutes of the meeting of the Committee on Public Relations held on August 27, 1939, were presented, and on motion of Dwight L. Wilbur, seconded by Charles A. Dukes, were approved.

## 3. Draft of Basic Science Law.

Consideration was then had of the proposed basic science act of California. Letters from Deans Paul S. McKibben and Langley Porter of the medical schools of the University of Southern California and the University of California on subjects to be included in the basic science act, and organization and selection of the Board of Examiners, were presented.

A letter from A. A. Morrison, Secretary of the Ventura County Medical Society, regarding the relative merits of a legislative and initiative procedure in enacting the proposed legislation was read. Suggestions contained in the letter of Mr. J. W. Holloway of the American Medical Association Legal Bureau, were also considered.

In the discussion which followed, the following amendments were offered to apply to the "second" draft of the Act, as prepared by the legal counsel:

(a) Section 2 (a). Delete the words "bacteriology, hygiene, and sanitation," and add the words "physics and biology," making the section read:

"(a) The basic sciences include all of the following subjects: anatomy, physiology, chemistry, physics, and biology."

(b) Section 2 (b). In the delineation of acts that constitute the practice of the healing art, the words "blemish and disfigurement" to be inserted after the word "deformity."

(c) In Section 3, part (4) delete the words "certificate of proficiency," in the second paragraph, and insert the words "basic science certificate," the sentence then to read:

"Said examination shall include all of the basic sciences and no person may apply to any of said Boards for any of said certificates or licenses unless he has successfully passed said examination, and holds a valid basic science certificate in the basic sciences."

(d) Section 4. Insert the words "and remain" in the second sentence after the words "each person appointed shall be," the sentence then to read:

"The first members of said Board and all subsequent appointees shall be selected because of their knowledge of the basic sciences, and each person appointed shall be and remain an active full-time instructor in one or more of the basic sciences," etc.

In the fourth sentence of Section 4 the word "disqualification" is to be inserted after the word "resignation," the sentence to read:

"On the death, resignation, disqualification, or removal of any member, the Governor shall fill the vacancy," etc.

(e) Section 5. In the second sentence the word "shall" is to be inserted in place of the word "may."

(f) Section 8. The fees for examination and for reciprocity are to be changed from "Ten Dollars" to "Fifteen Dollars" in each case.

(g) Section 9. Eliminate the words "of proficiency," in the first and second sentences, and insert the words "basic science," the section then reading:

"The Board shall issue a basic science certificate in the basic sciences to each of the successful applicants after

examination, as herein provided. Each basic science certificate in the basic sciences shall be in the form prescribed," etc.

(g) Section 10. This section is to be changed to read:

"The sum of \$5,000 is hereby appropriated from the general fund of this state to carry out the purposes of this act, provided that such funds are to be returned to the General Fund of the State as soon as the Basic Science Board has sufficient funds to administer and carry out the provisions of this act."

(h) Section 11. At the end of the last sentence in this section add:

"and said fund shall not be drawn upon or used for any other purpose except as set forth herein."

(i) Section 13. The next to the last sentence in the paragraph to be changed to read:

"If an applicant receives less than 75 per cent in more than one subject, the applicant shall be reexamined in those subjects in which he fails to reach a grade of 75 per cent."

(j) Section 15. Insert in Section (2) the words "and the standards maintained by the Board of Examiners in the basic sciences," the sentence then to read:

"That the requirements of that state and the standards maintained by the Board of Examiners in the basic sciences are not less than those required by this act," etc.

(k) Section 18. The first sentence to be changed to read:

"Any person who obtains or attempts to obtain or assists in obtaining a basic science certificate by dishonest or fraudulent means, or who forges, counterfeits, issues, or materially alters," etc.

(l) Section 19. The first sentence to read:

"Upon collection by the proper officer of the Court, seventy-five (75) per cent of the fines or forfeitures of bail in any case in which any person is charged with the violation of this act shall be paid to the Board without placing the fine or forfeiture of bail in any special, contingent or general fund in any county, city or township, and the balance of twenty-five (25) per cent of the fines or forfeitures of bail shall be paid to the county where the action is tried."

(m) *Extent of Possible Coöperation of Dental Profession for Basic Science Law.* It was moved by Charles Dukes, seconded by Donald Cass, that a letter be written to the California State Dental Association, which meets this coming week, asking if they desire to coöperate in the enactment of a basic science initiative; and that two committees be appointed: one, consisting of Chairman George Reinle and Doctors Wilbur and Kress, to contact the California State Dental Association now in session, and the other, consisting of Doctors Maner, Cass, and O'Neill, to confer with the officers of the Southern California State Dental Association. *Carried.*

It was agreed that the section is acceptable as it is at present written, except that the attitude of the dentists is to be learned and their inclusion or exclusion to be based on their desires.

To the section as now written is to be added the clause: "nor to persons specifically permitted by law to practice without licenses, provided each such person only practices within the limits of the privileges thus granted to him."

It was moved by Charles Dukes, seconded by George Maner, that the attorney be instructed to make such provision as is deemed necessary for the exclusion of those specifically permitted by law to practice within the limits of the privilege granted, without licenses. *Carried.*

It was moved by George Maner, seconded by Donald Cass, that the draft of the Basic Science initiative be approved as amended. *Carried.*



#### 4. On Relative Merits of Enactments by Legislature or Initiative.

The letter of A. A. Morrison, Secretary of the Ventura County Medical Society, was further discussed, and on motion of Charles Dukes, seconded by Donald Cass, the Secretary was instructed to advise Doctor Morrison that when the Committee presented its draft to the Council it would also submit for consideration the suggestions forwarded on behalf of the Ventura County Medical Society. *Carried.*

#### 5. Committee Recommends a Basic Science Initiative in 1940 General Election.

It was moved by Charles Dukes, seconded by George Maner, that the draft of a Basic Science Act, as prepared by the Committee on Public Relations, be presented to the Council at its meeting on October 7, with the recommendation that the Committee believes that a Basic Science initiative should be placed before the people at the 1940 General Election. *Carried.*

It was moved by George Maner, seconded by Charles Dukes, that Doctors Cass and O'Neill be appointed to represent the Committee at the Council meeting on October 7. *Carried.*

#### 6. Medical Defense.

George D. Maner reported on the plan used by the Los Angeles County Medical Association for reducing the incidence of malpractice suits. Doctor Maner stated that the work was largely handled by the Professional Conduct Committee working in conjunction with its subcommittee on fee complaints. Many potential malpractice cases centered in good part on the matter of fees. Doctor Maner stated that two to three calls per week were received by the Los Angeles County Medical Association. The action taken was dependent upon the type of complaint. Many times misunderstandings were cleared up by mutual understanding and agreement, through the county society office without further reference to the committees. Doctor Maner stated that in some instances the primary conversation indicated antagonism and possibility of suit, and that by diplomatic handling and conference with both the patient and physician, it was possible to clarify the entire matter to the satisfaction of all concerned. Doctor Maner reported that during the last year, thirty-nine cases had been heard by the Committee. About 25 per cent of the complaints came from definite psychopaths. A total of ten cases were heard in which an agreeable settlement was impossible; six cases were settled in favor of the physicians; seventeen cases culminated in a friendly adjustment and compromise; six suits which had been filed were withdrawn. The Committee feels that the largest percentage of malpractice suits have as a basis some relation to supposedly excessive fees, or a misunderstanding on the part of the patient before the services were rendered as to what the possible fee will be; or to the institution of a suit by the physician too soon after the services are rendered.

It was moved by Charles Dukes, seconded by Donald Cass, that, inasmuch as the chairman of the Committee on Public Relations is chairman of the Committee on Medical Defense, and that Doctor Maner and Mr. Peart have had extensive experience in this matter, they be appointed to whip into form for the next meeting of the Committee on Public Relations a skeleton primer that might be sent to members for use of the Committee in studying this entire problem. *Carried.*

Doctor Cass suggested that the California medical schools be requested to give instruction in these matters.

#### 7. Practice of Optometry.

A letter from the Visual Conservation Bureau of Los Angeles, regarding alleged violation of the Medical Practice Act by Optometrists, was presented, for the information of the Committee.

#### 8. Industrial Practice.

Donald Cass, Chairman of the Committee on Industrial Practice, called the attention of the Committee to the work being carried on by the American Medical Association Committee on Industrial Practice along the lines of industrial hygiene and industrial health. Doctor Cass stated that the program contemplated federal aid in the promotion of better living conditions, alleviation of sickness, and the eradication of industrial diseases.

Doctors Dukes and Reinle were delegated by the Committee to contact Dr. Robert T. Legge, California member of the American Medical Association Committee on Industrial Health, and ascertain the type of coöperation desired from the California Committee.

#### 9. WPA.

Association Secretary Kress stated that reports had been submitted by the Works Progress Administration, covering medical care to persons under its supervision.

It was stated that unofficial information had been received in various parts of the state that the panel system of physicians would be discarded by the SRA and the work cared for by salaried full-time physicians.

It was moved by George Maner, seconded by Donald O'Neill, that the Committee on Public Relations go on record as being opposed to plans of governmental authorities for the employment of one or a very limited number of physicians on contract basis to do professional work when such work has heretofore been done by a larger panel of physicians. *Carried.*

#### 10. Relation of Public Health Activities to Private Practice.

A letter was read from a member of the Association requesting action by the Association on the extension of public health activities into private practice when neither emergency nor financial stress existed. Copy of the letter was ordered sent to the Los Angeles County Medical Society, and also referred for further consideration at the next meeting of the Committee on Public Relations.

#### 11. Publicity.

Mr. Ross Marshall submitted a progress report on his recent activities.

Mr. Ben Read, Secretary of the California Public Health League, spoke on the plans of that organization.

#### 12. Exhibits.

Dr. Norman O'Neill, Chairman of the Special Committee on State and County Fair Exhibits, stated that he had secured information from various sources regarding exhibits, and that the consensus of opinion was that chart type of exhibits were no longer effective; exhibits portraying motion having more drawing power. Doctor O'Neill stated that he had consulted certain health departments, organizations, and hospitals regarding exhibits, and believed these could be secured if funds for transportation and maintenance were provided. With an attendance of 500,000 persons at the Sacramento State Fair, and also at the Los Angeles County Fair, and large attendances also at other county fairs, it appeared desirable to use these means for educational publicity.

#### 13. Date of Meeting.

The next meeting of the Committee on Public Relations was set for Saturday, October 28, 1939, at 9 a. m., in San Francisco.

#### 14. Adjournment.

There being no further business, the meeting adjourned.

GEORGE G. REINLE, *Chairman.*

GEORGE H. KRESS, *Secretary.*

## COMMITTEE ON PUBLIC HEALTH EDUCATION†

### Minutes of the Second Meeting of the California Medical Association Committee on Public Health Education

The meeting was held in the central office of the California Medical Association, Four Fifty Sutter Building, San Francisco, on Sunday, September 10, 1939, at 9 a. m.

#### 1. Call to Order.

The meeting was called to order by Chairman Frank R. Makinson.

The following members were present: Frank R. Makinson, Oakland, Chairman; Samuel Ayres, Jr., Los Angeles; Dewey R. Powell, Stockton; Junius B. Harris, Sacramento; Thomas A. Card, Riverside; Charles A. Dukes, President, Oakland.

Absent: Lowell S. Goin, Los Angeles; Karl L. Schaupp, San Francisco.

Present by invitation: Mr. Ross Marshall, Public Relations Counsel of the Committee; Mr. Ben Read, Secretary, California Public Health League; George H. Kress, Secretary of the California Medical Association.

2. Minutes of the first meeting of the Committee on Public Health Education, as given in the July issue of CALIFORNIA AND WESTERN MEDICINE, on page 47, were approved.

Chairman Makinson made a report on an informal conference held in San Francisco and submitted a memorandum thereon. The actions then agreed upon were approved.

Upon motion by Doctor Powell, seconded by Doctor Harris, it was voted that the minutes of this meeting of September 10 be sent to CALIFORNIA AND WESTERN MEDICINE for publication.

3. Concerning requests by members of the California Medical Association for refunders of special assessment, under claim that the same were paid under duress, namely, because of threatened loss of membership, the Chairman stated that the Committee on Public Relations would adhere to this announced policy, and refer all such matters to the Council of the California Medical Association, which was the body that had authority. Inasmuch as the Committee on Public Relations had no authority in such premises, it would not take up the consideration of the requests.

4. The Association Secretary made a report concerning the special assessment levied by the House of Delegates, as of date of June 1, 1939, stating that a total of 5,530 members had paid this special assessment, and that the money received, \$55,300, had been deposited in the special assessment fund of the California Medical Association in the American Trust Bank at Grant Avenue and O'Farrell Street, San Francisco.

Expenditures to date left a balance in the fund of \$54,070.24.

#### 5. Report by Public Relations Counsel, Ross Marshall.

Chairman Makinson asked Mr. Ross Marshall to make a report on work under way, and future plans.

(a) *Speakers' Bureau.* Mr. Marshall stated that the Association Secretary had given him letters of introduction to Drs. John Cline of San Francisco and Paul Quaintance of Los Angeles, each in charge of Speakers' Bureaus, in connection with the compulsory health law; and in visits to Doctors Cline and Quaintance, they assured him that they would be glad to give him their coöperation in their respective districts.

Mr. Marshall submitted a report form to be used in connection with assignments from the Speakers' Bureau, and authorization was given for its printing.

(b) The subject of radio publicity was informally discussed. Doctor Powell spoke of facilities offered by one of the druggists at Stockton, and it was felt that similar affiliations should be made in other districts.

On the subject of broadcasts, Doctor Ayres suggested that it might be advisable to confer with the federal and other authorities relative to clamping down on off-color medical broadcasts put out by quacks and commercialists.

(c) The subject of an informative letter to be sent at, say, once in three months to permit members of the California Medical Association to keep in touch with the activities of the Committee on Public Health Education, was considered.

It was felt that such a letter, in which a discussion of recently enacted legislation could be discussed, might be of real value.

(d) On motion by Doctor Powell, seconded by Doctor Card, it was voted that Mr. Marshall and Mr. Read work up an informative letter to be submitted to Chairman Makinson, and that the same then be sent out.

It was suggested that, in such a letter, a reply card might be inserted asking members of the California Medical Association to send in their fraternal and other society affiliations, it being thought that this information might be of great service at times.

(e) Concerning his contract with the Committee on Public Health Education, Mr. Marshall stated he would contact Legal Counsel Peart so that the same may be gotten into proper form.

(f) Mention was made of the plan of the Los Angeles school district to provide electrical transcriptions to be used in the different schools of the district to cover constructive endeavors and advancements. Among other matters, public health stories might be included. The Committee felt that the Public Relations Counsel might well give special thought to promoting this matter.

(g) An article that appeared in a Fresno newspaper, presumably written by a social welfare worker, and containing considerable misinformation concerning public health needs and medical care, was called to the attention of the Committee.

It was felt that such a matter should be promptly investigated by the Public Relations Counsel, who was to inquire into and inform himself as to the actual facts, and then, in coöperation with the local society, promptly proceed to counteract the misinformation that might have been given out.

An informal discussion followed in regard to this, and Doctor Ayres stated that he felt that, in Los Angeles, certain existing deficiencies might well be looked into. He further suggested that, in any matters of this kind, it might be well to bring into being local committees to be consulted, and through whom it would be possible to secure accurate information.

#### 6. Report by Mr. Ben Read, Secretary of the California Public Health League.

Mr. Read spoke in a general way of the work of the California Public Health League in relation to its activities that were designed to make for the conservation of the public health. Among other items were mentioned the following:

(a) The legislative system under which California was working, stressing the importance to the medical profession of having representatives in all political districts who would bring about proper contacts with legislative and other officials.

(b) It was important to express appreciation to legislators who had been loyal to public health interests. He mentioned a recent luncheon in the Los Angeles district that had brought out a very generous response.

† The Committee on Public Health Education was established through Substitute Resolution No. 6 at the Del Monte annual session, May 3, 1939.



(c) Mr. Read also mentioned a district in Southern California in which misinformation had been given concerning recent work at Sacramento. Efforts were being made to nullify the adverse propaganda.

(d) Proposed chiropractic initiative, Proposition No. 2, which will appear on the November 7, 1939 ballot, was discussed. Attention was called to the fact that those designated by Lieutenant-Governor Patterson to write arguments pro and con were apparently in full accord and working in the same office.

The Association Secretary stated that these newspaper items would be printed in CALIFORNIA AND WESTERN MEDICINE. (See September issue, on page 197.)

Members of the committee agreed that the proposed chiropractic initiative was a distinct menace to the public health interests of California, and that efforts should be made to prevent its adoption.

Mr. Read submitted a budget on printing and radio needs. After discussion, on a motion by Doctor Powell, seconded by Doctor Ayres, the sum of \$10,000 was voted to be allocated for this work.

Doctor Ayres stated he would vote for the allocation of funds on the condition that a letter by the California Medical Association Council should be sent out asking members of the California Medical Association to make voluntary contributions or donations to the Committee on Public Health Education fund to make up, in part at least, the money so expended.

(e) The desirability of having some radio broadcasts in connection with the chiropractic initiative was also presented; and after discussion, on motion by Doctor Powell, seconded by Doctor Card, the sum of \$3,040.58 was allocated to carry through the program as submitted in Mr. Read's memorandum.

(f) The desirability of having two committees, whose members would consider suggestions concerning publicity or other work in connection with the chiropractic initiative, was taken up, and it was agreed that, for the North, the committee should consist of Drs. Frank R. Makinson, Karl L. Schaupp, and Anthony B. Diepenbrock; and for the South, the committee should consist of Drs. Harry H. Wilson, Samuel Ayres, Jr., and John W. Crossan.

## 7. Date of Next Meeting.

The date of the next meeting was left to the decision of the Chairman. At the Council meeting, to be held on October 7 in Los Angeles, it was suggested that Doctors Ayres, Card, and Goin might represent the Committee on Public Health Education.

8. Attention was called to the fact that the Committee might need a vice-chairman, and the motion was duly made and seconded that Doctor Ayres should be elected vice-chairman of the Committee on Public Health Education.

(Signed): FRANK R. MAKINSON,  
Chairman.

DEWEY R. POWELL,  
Temporary Secretary.

## GROUP HEALTH ASSOCIATION CONTRACT UNIQUE BUT NOT INSURANCE, SAYS UNITED STATES COURT

In the opinion of the United States Court of Appeals for the District of Columbia,<sup>1</sup> the contract between Group Health Association, Inc., and its members may be unique, the obligation assumed by the corporation to its membership may be tenuous and the members' responsibility to it may be correlatively attenuated, but the contract is not one of insurance or indemnity. The court, in a decision rendered September 11, thus upheld the judgment of the District Court of the United States for the District of

Columbia, that Group Health Association does not have to comply with the insurance laws of the District of Columbia. Whether or not the contract is a fair one, or whether or not it lacks sufficient consideration or mutuality of obligation to be valid and enforceable, the court refrained from discussing; those issues were not before it. A contract of insurance, the court pointed out, is predicated on the existence of a risk of loss to which one party may be subjected by contingent or future events and an assumption of that risk by another, by legally binding arrangement. Hazard is essential, and equally so a shifting of the resultant liability from the person primarily exposed to risk to someone else. If there is no risk, or there being one it is not shifted to another or others, there can be, in the judgment of the court, neither insurance nor indemnity. After reviewing the by-laws of the corporation, not as they were originally adopted in 1937, but as they have been variously amended since that time, the court was convinced that neither of these two elements was present in the contract entered into between the corporation and its members. The effect of the Group Health Association arrangement, according to the by-laws as interpreted by the court, is to make available to members, if they wish to receive them, the services of the physicians employed by the corporation. The only obligation the corporation assumes toward its members is to make contracts with physicians and others. There is no agreement or binding obligation to provide such service or see that it is supplied. It does not guarantee that any of the services will be rendered nor does it assume any liability for any act of omission or commission by any physician who does render them. If for any reason it becomes unable to procure any or all such services when called on to do so, its only obligation is "to use its best efforts to procure the needed services from another source." After carefully reviewing the by-laws of the corporation, the court referred to the obligation assumed by the corporation as tenuous and to the contract as unique. The court called attention to the uncertainty of the member's right of recourse against the corporation for a breach of its contract with him to emphasize the non-existence of an assumption of risk by the corporation or an agreement of indemnity.

Even though Group Health Association, Inc., were otherwise within the purview of the insurance laws, the court thought that the corporation was a "relief association not conducted for profit, composed . . . solely of employees of any other branch of the United States Government service," within the meaning of the insurance laws of the District of Columbia and thus excused from complying with such laws. The court did not refer, however, to any provision in the by-laws of the corporation that limits the services of physicians employed by it to members who in fact need financial aid. So far as is known there is no such limitation, the member who is a charwoman and the member who is a highly paid executive being entitled to the same quality and quantity of services. Although the insurance laws provide that a relief organization must be composed solely of employees of the Government to be entitled to exemption, the court thought that the fact that dependents of employees are entitled to membership in the corporation does not disturb its exempt status. The court based its construction of the law in this respect only on what it referred to as "the almost universal practice of relief associations and departments" and not on any statute or court decision.

The gist of the decision seems to be that the contract between Group Health Association, Inc., and its members imposes no legally enforceable obligation on the corporation to furnish relief or service of any kind under any condition and that, since the corporation assumes no risk to which a member may be subject, the contract is not one of insurance and the corporation is not engaged in the business of insurance.—*Journal of the American Medical Association*, September 23, 1939.

<sup>1</sup> Albert F. Jordan, Superintendent of Insurance for the District of Columbia, appellant, vs. Group Health Association, a corporation, appellee, decided September 11, 1939.

## CALIFORNIA PHYSICIANS' SERVICE<sup>†</sup>

With the backing of the medical profession expressed in its willingness to offer medical care in whatever amount is needed to subscribers of California Physicians' Service, contracts have been completed with approximately twenty groups within the last month. Now that there are these actual groups who are receiving medical care through this new plan for service, and because of the completeness of the offering being made to prospective groups, it appears that the program will meet with increasing encouragement in its efforts from now on.

Four special representatives have been added to the staff of California Physicians' Service. These four men, together with the manager and the assistant manager, will offer the combined medical and hospital coverage that has been worked out as the result of the agreement between the three nonprofit hospital associations and California Physicians' Service. In addition, representatives of each of the three hospital associations are offering the joint coverage to their prospects. The locations of the territories of the various representatives are so arranged that a group in any part of the state may have personal presentation of the offering by an informed representative either of California Physicians' Service or one of the hospital associations. Suggestions made by professional members, naming any interested groups, will be welcomed by the staff and given immediate attention.

As more groups secure coverage, patients in increasing numbers will require service. When questions arise concerning preëxisting conditions, procedures and use of forms, professional members should consult the deputy medical director in the district. (See September issue of CALIFORNIA AND WESTERN MEDICINE for list of deputy medical directors.)

To protect the medical profession—the sponsors of California Physicians' Service—from the uninsurable risk involved in treating conditions already existing at the time beneficiary members secure coverage, all contracts exclude treatment of "any and all conditions of any beneficiary member existing at the time of issuance to him of a certificate of beneficiary membership." The professional members, the deputy medical directors, and the medical directors are the protectors of the resources of California Physicians' Service. They are expected to be alert to detect infringement on those resources by beneficiary members, whether they act consciously or unconsciously on such infringement. A history card may contain no note of preëxisting disease. The professional member, in his history taking, will be able to detect concealment of such preëxisting disease and so advise the medical directors. We find, for example, references to appendicitis, sinus disease, chronic "indigestion," etc. In such instances applicant will be accepted, with the acknowledged disease excepted.

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Because a number of doctors have been approached by their patients for interpretation of provisions of our contracts as listed in the descriptive folder, a few of the more common questions with their answers are mentioned here:

*Q. May all employees, no matter how much their incomes be, get protection against the cost of hospital and medical care through California Physicians' Service?*

A. Yes.

*Q. Does this exclude those whose incomes are above \$3,000 a year?*

A. No. It is not intended to exclude from benefits those who earn over that amount. A beneficiary member whose

income is over \$3,000 will receive his hospital care the same as any other member and the same amount will be paid by California Physicians' Service to his doctor as would be paid in the case of a member earning less than \$3,000. He and his doctor will agree upon the total fee and he will pay his doctor the difference between this amount and the amount paid by California Physicians' Service.

(Since California Physicians' Service has been organized primarily to furnish medical service to people of low incomes, it is expected that doctors will be paid fees appropriate for people with incomes of \$1,200 to \$1,500 per year. If all medical fees were reduced to this level, the doctors of California could not exist under conditions of private practice with personal service to each patient.)

*Q. What are "preëxisting conditions"?*

A. In general, "preëxisting conditions" are those, the symptoms and evidence of which have been present before membership begins.

*Q. Who will decide what constitutes "preëxisting conditions"?*

A. The decision in each case is a medical problem and will be made by the attending doctor and the medical director, with the policy always of giving the patient the benefit of any reasonable doubt.

("The preëxisting conditions" exclusion will be interpreted liberally and in good faith. Its intent is to prevent members joining for the purpose of securing, at the expense of others, treatment already known to be needed. The whole idea of monthly payment health service is that a number of people *exposed to the risk* of sickness or injury contribute small amounts to a common fund so that when *unexpected* sickness or injury comes to a few the costs can be met from the fund. Preëxisting conditions are not *unexpected*; they are already here.)

*Q. May coverage be extended to include dependents?*

A. Hospital coverage (but not doctor's services) may be extended to include dependents, for a small additional monthly fee.

*Q. Who are considered as dependents?*

A. Spouses and children are the only dependents to whom hospital coverage is offered.

*Q. Is medical coverage offered for dependents?*

A. California Physicians' Service is not yet in position to offer medical coverage that includes dependents. After experience is gained in handling groups, California Physicians' Service looks forward to the broadening of coverage to include spouses and children.

(In the beginning coverage is offered to employed people only—employed members of groups—because California Physicians' Service is anxious to build up experience with people of average health. No physical examination is required, since it is assumed that the average employee has average health.)

*Q. What time limits are set upon medical care?*

A. Medical care within the limitations described will be furnished up to one year for any one illness or injury. Whatever service is needed will be furnished.

*Q. What money limits are set upon medical care?*

A. There are no money limits. Whatever service is needed will be furnished.

(There are no money limits on service within the time periods mentioned in both California Physicians' Service and hospital contracts. California Physicians' Service is not an insurance company thinking in terms of dollars—it is a doctors' organization thinking in terms of service. Its physician members want to treat patients—not settle claims. They want to give the best medical care they know how, and they want to give all the care their patients need. If your doctor needs to see you two or three times a day, that service will be furnished. If a patient has to go to the oper-

<sup>†</sup>Address: California Physicians' Service, 220 Montgomery Street, San Francisco. Telephone: EXbrook 3212. Manager, Mr. Allen Widenham.



ating room a second or third time, there will be no extra charge. If consultations are needed, they will be furnished.

• • •

Professional members have elected by mail ballot two administrative members from each district. Administrative members will meet on October 14 at Fresno. This meeting will include the newly elected members from the twenty-one districts. This will be a meeting of the professional membership—a meeting in which the professional membership may participate by sending suggestions regarding the program of California Physicians' Service to its representatives.

Administrative members elected from the professional membership are as follows:\*

*District No. 1—San Francisco, San Mateo, Marin counties:*  
William L. Bender, M. D.  
T. Henshaw Kelly, M. D.

*District No. 2—Los Angeles County (City of Los Angeles and Hollywood):*

*District No. 3—Alameda, Contra Costa counties:*  
Harry G. Ford, M. D.  
Dexter N. Richards, M. D.

*District No. 4—Los Angeles County (Northwest):*  
Lewis P. Bolander, M. D.  
J. J. Smith, M. D.

*District No. 5—Santa Clara, Santa Cruz counties:*  
James B. Bullitt, M. D.  
Alfred L. Phillips, M. D.

*District No. 6—Los Angeles County (Northeast):*  
William Gibbs, M. D.

*District No. 7—Mendocino, Sonoma, Lake, Napa, Solano counties:*  
John Green, M. D.  
Henry Rogers, M. D.

*District No. 8—Los Angeles County (South):*  
Greg Hoskins, M. D.  
Dwight C. Sigworth, M. D.

*District No. 9—Humboldt, Del Norte counties:*  
J. S. Woolford, M. D.

*District No. 10—Orange County:*

*District No. 11—Fresno, Merced, Mariposa, Mono, Inyo, Madera, Kings, Tulare counties:*

*District No. 12—San Luis Obispo, Santa Barbara, Ventura counties:*  
Hugh F. Freidell, M. D.  
Percival A. Gray, Jr., M. D.

*District No. 13—San Joaquin, Amador, Alpine, Stanislaus, Calaveras, Tuolumne counties:*  
J. F. Doughty, M. D.

*District No. 14—San Diego, Imperial counties:*  
George D. Huff, M. D.  
Lyell C. Kinney, M. D.

*District No. 15—Sacramento, Sutter, Yuba, Sierra, Nevada, Placer, Eldorado counties:*  
Frederick N. Scatena, M. D.  
Louis E. Jones, M. D.

*District No. 16—Kern County:*

*District No. 17—Glenn, Butte, Colusa, Yolo counties:*

*District No. 18—Riverside, San Bernardino counties:*  
Carlos G. Hilliard, M. D.  
Wayne K. Templeton, M. D.

\* In those districts where newly elected members are not shown, or where only one is shown, the tally of votes has not been completed. Results for these districts will be given in the next issue of CALIFORNIA AND WESTERN MEDICINE.

*District No. 19—Siskiyou, Trinity, Shasta, Tehama counties:*

*District No. 20—San Benito, Monterey counties:*  
L. P. Davlin, M. D.  
J. B. McCarthy, M. D.

*District No. 21—Modoc, Lassen, Plumas counties:*  
George S. Martin, M. D.  
W. B. McKnight, M. D.

### Informative Bulletins

#### BULLETIN V: CALIFORNIA PHYSICIANS' SERVICE\*

San Francisco, September 13, 1939.

Subject: Mail Ballot; Handling of Forms; General Information.

To All Professional Members of California Physicians' Service.

#### MAIL BALLOT

There is enclosed a mail ballot for your use in voting for administrative members for your district. The by-laws provide for an election of two administrative members from each district. You should, therefore, vote for two nominees in your district. As the card indicates, it is permissible to write in the name of a professional member for whom you might wish to vote but who was not nominated by petition.

The ballot is addressed to the California Physicians' Service office and may be mailed as a postcard by merely affixing a one-cent stamp. If, for any reason, you prefer not to send your ballot in the mail open, drop it in an envelope addressed, as the postcard indicates. Please sign the ballot in order that we may be assured that a professional member is casting his vote.

Please mail this ballot promptly as it is necessary that your votes reach the office of California Physicians' Service not later than September 25, in order that the votes may be tallied and notification sent to the newly elected administrative members concerning the annual meeting to be held on October 14.

#### HANDLING OF FORMS

As forms are being used in connection with the treatment of beneficiary members, it appears desirable to emphasize certain points.

The Form No. 7—Pink copy (supply of which has been sent to all professional members) is to be completed by the doctor when a beneficiary member appears for treatment without a white or yellow slip signed by the employer or group agent. In filling out this form the person's name, and either Social Security or identification number appearing on his beneficiary membership certificate, should be written on the top half of the pink slip. It is not necessary to have the employer or group agent sign this pink slip. It should be signed by the patient and, after completion, by the doctor, forwarded to the deputy medical director immediately.

In filling out California Physicians' Service Medical Service Report, Form No. 9—immediately after completion of treatment or at the end of the month, whether treatment is completed or not, it is not necessary for the doctor to indicate the unit value of the services performed. Simply indicate the service performed, and the unit value will be filled in at the central office. One copy of this form will be returned to the professional member after the unit value has been computed and at the time payment is being made for service rendered.

\* For other information, see CALIFORNIA AND WESTERN MEDICINE, September, 1939, on pages 184, 186, and 206.

*May we urge again that professional members forward medical service reports promptly as stated above—either immediately after completion of treatment or at the end of the month, whether treatment is completed or not. It is absolutely essential that all bills for the month be in the California Physicians' Service office on or before the 15th of the next succeeding month because the entire basis for computation of the unit value is represented by these bills. Bills not received in time to be included in the unit value for a given month cannot be paid.*

It will simplify the handling of forms in the central office a great deal if care is taken to always use the Social Security or identification number appearing on the beneficiary member's certificate. Records concerning members are filed numerically and use of the name without the identification number necessitates another procedure in the office to locate a particular member's file.

#### GENERAL INFORMATION

##### *Periodic Health Examinations.*

While the contract refers to professional services required by a beneficiary member as a consequence of illness or accident, it was the feeling of the trustees at a recent meeting that a "check-up" examination may be furnished a beneficiary member upon request, but not oftener than once in any contract year. Such an examination would consist of the usual general physical examination and urinalysis. X-ray or other laboratory work is not included in such an examination. If any condition is disclosed requiring further investigation, same will be subject to general rules applying to diagnosis and treatment of illness.

##### *Premarital Examinations.*

Since the California Physicians' Service contract was drawn premarital examinations have become, by law, mandatory. California Physicians' Service will, therefore, include such examinations as a service to its beneficiary members. The certificate to be completed by the physician under the new law necessitates a "standard serological test" in connection with the examination. Therefore, the necessary laboratory work will be included in this authorization, subject to the general regulations governing laboratory work.

##### *Laboratory and X-ray Work.*

Professional members are reminded that laboratory work must be referred to professional members of California Physicians' Service. In communities where no laboratory services by California Physicians' Service professional members are available, the doctor may have the work done in an approved laboratory (list of approved laboratories will be furnished as soon as the necessary surveys can be completed). It is, however, impossible under the organization of California Physicians' Service for bills for professional services to be paid to anyone except professional members of California Physicians' Service. The doctor, therefore, should bill for such necessary work as if done by himself. At an early date, and as soon as a survey of available laboratory facilities can be made, further information concerning laboratory work will be sent you.

##### *Two-Visit Deductible Contracts.*

The practice to be followed by professional members in this connection needs clarification. California Physicians' Service is not attempting in any way to set a price on ordinary office visits. The charge to be paid by the patient should be the amount the professional member would normally charge for the same service. In the event needs of the patient require diagnostic investigation more extensive than an ordinary office visit permits, the patient is expected to pay only the amount of two ordinary office visits, the balance to be paid by California Physicians' Service.

For example: At the first office visit it becomes apparent that a complete medical investigation for some not readily apparent abdominal disorder will be necessary. When this has been authorized by the medical director the doctor will proceed with the investigation. He will charge the patient directly only for two ordinary office visits. He will then show on his monthly statement to California Physicians' Service the total amount of service performed and indicate in the space provided the charge made to the patient. This will then be taken into account in computing the unit value remaining to be paid. The same principle will apply to surgical procedures, etc.

Laboratory procedures and x-rays should not be regarded as second office visits. For instance, a person comes in with an injury to an ankle. X-rays are required and taken. The patient should pay for the office visit, but no charge will be made to him on the x-ray bill.

For example: A doctor sees a patient at home, makes a diagnosis of appendicitis, sends the patient to the hospital for operation. The patient shall pay the amount the doctor would charge for two ordinary visits.

\* \* \*

Including the California State Employees' Association, we now have approximately twenty groups, involving an estimated membership of 1,250. California Physicians' Service now has six representatives making contact with groups and presenting the plan. As many professional members doubtless know, an arrangement has been worked out with the three nonprofit hospital associations whereby their representatives are also handling the issuance of joint medical and hospital coverage. It is anticipated that this combined effort will result in the gradual building up of our beneficiary membership. The Board of Trustees will deeply appreciate suggestions from any professional members concerning groups which may be interested in California Physicians' Service coverage.

The by-laws require an annual meeting of administrative members, which is to be held in Fresno on October 14. Please consider this your invitation to participate in this meeting by sending directly to this office or to the administrative members in your district any suggestions or criticisms which you may have concerning California Physicians' Service.

ALSON R. KILGORE, M. D.,  
Secretary-Treasurer.

## COUNTY SOCIETIES

### MENDOCINO-LAKE COUNTY

The meeting of the Mendocino-Lake County Medical Society was called to order by President Robert B. Smalley on August 19 at the Mendocino County Hospital in Ukiah.

Dr. M. W. Debenham of San Francisco discussed *Tendon Injuries and Their Repair*. He pointed out that most texts recommend conservative treatment, but that it is almost a universal practice to repair severed tendons when first seen. In making tendon repairs the anatomical factors should be carefully considered to obtain the best results.

Dr. J. B. Josephson of San Jose considered *Injuries to the Large Tendons*. Repairs about the knee and ankle were graphically discussed. He pointed out some of the tendon injuries about the shoulder joint and their diagnosis and treatment.

The transfer of Dr. Grace Thomas to the Ventura Society was reported.

After adjournment, refreshments were served, through the courtesy of Doctor Cleland.

DALLAS L. WAGNER, Secretary.



## PLACER COUNTY

The Placer County Medical Society met at the Freeman Hotel in Auburn on August 19. The meeting was called to order by the past president, Dr. J. A. Russell. The following members and visitors also were present:

*Members*—Drs. P. D. Barnes, Dunievitz, Empey, Kindopp, Lewis, Lundegaard, Padgett, Peeke, and Peers.

*Visitors*—Dr. John Napier, District Superintendent and Director of Junior College, Auburn.

The minutes of the meetings held on May 27 and July 29 were read and approved.

The matter of the survey of the high school and junior college, together with the examination of the students, requested by Doctor Napier, was discussed. Doctor Napier stated that the expected attendance this year would be between twelve and thirteen hundred students, of whom a number, approaching nine hundred, will be examined. After discussion it was agreed that Doctors Peeke, P. D. Barnes, Lundegaard, and Monica Briner would assume the responsibility of the examinations, while Doctors Dunievitz, Kindopp, Russell, and Lewis will furnish assistance as required. The details of the examinations were left to the president, Doctor Miller, and Doctor Napier.

The members of the medical profession at Auburn agreed to take turns as medical representatives during competitive football games, as required by regulations, promising their services gratis.

The Secretary was instructed to take up with the Motor Vehicle Department the provision of a panel of physicians to act as examiners for bus drivers.

The matter of coöperation between the members of the County Medical Society and the Superintendent of Schools, and of the various school departments, was brought up by Doctor Dunievitz, and the Secretary was instructed to get into touch with the Superintendent and report back to the Society.

Correspondence which had accumulated was read and discussed. After the conclusion of routine business matters, the meeting adjourned.

ROBERT A. PEERS, *Secretary*.



## SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held in the Medico-Dental clubrooms, Stockton, September 7, preceded by the customary supper meeting at the Hotel Wolf, at which twenty members and guests were present. The supper-meeting paper was given by Dr. H. S. Chapman, who described his trip to Honolulu in the recent yacht race.

The regular meeting was called to order at 8:15 p. m. by President Neill P. Johnson. The minutes of the special meeting of the Board of Directors were read. The application of Dr. John C. Lynch for membership in the San Joaquin County Medical Society having been acted upon favorably by the Admissions Committee, and there being no objections from the floor, he was declared a member. A petition from Dr. W. L. Frazier of Sheepranch for membership in the San Joaquin County Medical Society was submitted and referred to the Admissions Committee.

The address of the evening was presented by Doctor Levitin of San Francisco, who gave two papers on *Localization of Lung Lesions in Relation to Lung Fissures*, and *X-Ray Diagnosis of Acute Abdominal Lesions, with a Differential Diagnosis*. These dissertations, profusely illustrated by slides and x-ray pictures, proved very interesting and highly instructive.

There being no further business, the meeting was declared adjourned at 9:45 p. m.

G. H. ROHRBACHER, *Secretary*.

## SAN MATEO COUNTY\*

September 20, 1939.

Dear Doctor:

We begin our fall session with the regular September meeting, which will be held on Wednesday evening, September 27, at the Benjamin Franklin Hotel. Dinner will be served at 6:30 sharp. Again we repeat, the work of the secretary's office will be greatly facilitated if you will kindly telephone your reservation within the next few days. Thank you!

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The meeting will be devoted to a discussion of an important and pertinent subject:

State Health Insurance in Germany: How It Works—Dr. Eberhard Sogemeier.

State Medicine as Generally Practiced in Europe—Dr. Meade Mohun.

Doctor Sogemeier and Doctor Mohun have both just returned from Europe. Doctor Sogemeier spent most of the summer in Germany and had an opportunity to study the form of state medicine practiced there with particular emphasis upon its present status. Doctor Mohun devoted his summer to travels through many European countries and has stated that he was particularly interested in the insurance set-up in the Scandinavian countries. Both of these men will have a great deal of first-hand information which will be of interest to us all.

We expect to be able to introduce the new councilor for this district, Dr. C. Kelly Canelo, who will bring us some information concerning the current chiropractic threat.

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Your attention is called to the following:

The American Medical Association has asked me to supply them with the names of all physicians in this community who are doing full time, or part time, practice in industrial or mercantile establishments. Any physicians so employed please notify this office. We should also like to have information concerning any industrial clinics operated independently of any factory or store and the name of the manager or medical director of the clinic. Thank you very much!

✻ ✻ ✻

The following applications for membership in the Society are on file: Doctors Thomas Farthing and Herman Biermer of San Mateo, Edward S. Schulze of Redwood City, and S. J. Guardino of Brisbane.

The following have been elected to membership in the Society: Doctors Logan C. Gray of Half Moon Bay and S. J. Lester Russell of Burlingame.

✻ ✻ ✻

The matter of fees for premarital examinations and blood tests has been discussed in a meeting of the Board. As you know, the County Health Department has announced that serological examinations are available free of charge for those people unable to pay. Concerning premarital examinations conducted by you in your office, the Board feels that it will be better for the individual physician to determine the fee charged in any given case and has set no standard fee.

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Next meeting, Wednesday, September 27, Benjamin Franklin Hotel, 6:30 p. m.

Cordially yours,

J. GARWOOD BRIDGMAN, *Secretary*.

\* This is a copy of one of the bulletins sent out by the San Mateo County Medical Society, J. Garwood Bridgman, M. D., Secretary.

## VENTURA COUNTY

The regular monthly meeting of the Ventura County Medical Society was held at Saticoy on June 13.

Twenty members were present, and Doctor Green of Camarillo and Dr. Howard Taylor were guests.

Dr. C. R. Wylie presented three cases of *Congenital Ear Deformities*.

Dr. C. A. Smolt addressed the Society on *Electrocardiography*.

Dr. C. Amolt moved, and Doctor Strong seconded the motion, that the delegate be allowed expenses to Del Monte. Carried.

A report of the Del Monte meeting was given by the delegate.

It was voted to dispense with the July and August meetings.

A. A. MORRISON, *Secretary*.

## CHANGES IN MEMBERSHIP

## New Members (58)

*Alameda County*

Ervin Epstein Charles T. Moul

*Humboldt County*

Walter W. Dolfini Rudolph Wolff

*Los Angeles County*

Ruth Aaron George Hill Hodel  
Oscar Auerbach Gale Wilbur Hunt  
Forest John Brainard Joel S. Kelsey, Jr.  
Richard E. Brenneman Sherburne Krieger  
Leonard S. Buck Benjamin M. Lieberman  
Harold Julius Chapman Edgar A. Lutz  
Chong Auck Chock John J. McDevitt  
David B. Davis John Bowen McDonald  
William J. Ekroth Edwin Jules Richie  
J. Paul Fitzgibbon Alexander Michael Riskin  
Samuel Gendel Kermit Jewell Ryan  
Victor Goodhill Otto Ernest Schoenfeld  
Elmer F. Gooel Ralph Justin Seawall  
Carl Michael Grossman Lawrence Sheldon Siegel  
Francis E. Guinney A. Joshua Siever  
Arthur L. Henrichsen Henry Howard Thomson  
John W. Higgins Ralph H. Walker

*Napa County*

Lovina Ruth Miller Albert T. Voris  
John L. Passmore Ethel M. Walker

*Placer County*

Monica Stoy Briner

*San Diego County*

Ira J. Clark John E. Novak  
Francis H. Maguire

*San Joaquin County*

John C. Lynch

*San Luis Obispo County*

F. F. Ragsdale

*San Mateo County*

Albert G. Miller St. J. Lester Russell

*Santa Clara County*

I. J. Hopkins A. J. Monty  
Meldord Jorgensen George A. Wood

*Shasta County*

Donald Barber Marchus Louis C. Mosher

*Sonoma County*

E. Blair

*Stanislaus County*

Jens P. Jensen

## Transfers (3)

Curtis Bland, from Los Angeles County to Vigo County, Indiana.

Paul H. Cronenwett, from Stanislaus County to Alameda County.

Ramino Fernandez, from Los Angeles County to Orange County.

**In Memoriam**

**Colburn, Jefferson Martain.** Died at Riverside, September 15, 1939, age 81. Graduate of the Kansas City Homeopathic Medical College, 1895. Licensed in California in 1897. Doctor Colburn was a member of the Riverside County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.



**Collins, Foster Kyle.** Died at Los Angeles, September 18, 1939, age 68. Graduate of Medico-Chirurgical College of Philadelphia, 1899. Licensed in California in 1915. Doctor Collins was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.



**Cottrell, Charles Chester.** Died in Scotia, August 15, 1939, age 56. Graduate of Cooper Medical College, San Francisco, 1907, and licensed in California the same year. Doctor Cottrell was a member of the Humboldt County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.



**Dickson, Ernest Charles.** Died at Garberville, August 24, 1939, age 58. Graduate of the University of Toronto Faculty of Medicine, 1906. Licensed in California in 1909. Doctor Dickson was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.



**Gibbs, Dozier Henry.** Died at Los Angeles, July 10, 1939, age 44. Graduate of Vanderbilt University School of Medicine, Nashville, 1917. Licensed in California in 1923. Doctor Gibbs was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.



**Hawkins, Harrison Morton.** Died at Taft, August 3, 1939, age 52. Graduate of Jefferson Medical College of Philadelphia, 1914. Licensed in California in 1915. Doctor Hawkins was a member of the Kern County Medical Society, the California Medical Association, and the American Medical Association.



**Miller, Charles Miner, Jr.** Died at Olive View, August 27, 1939, age 45. Graduate of the University of Pittsburgh School of Medicine, 1928. Licensed in California in 1929. Doctor Miller was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.



**Shea, John Joseph.** Died at San Diego, August 19, 1939, age 70. Graduate of Harvard University Medical School, Boston, 1897. Licensed in California in 1915. Doctor Shea was a member of San Diego County Medical Society, the California Medical Association, and the American Medical Association.

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**Van Eman, Orley Haven.** Died at El Centro, August 25, 1939, age 40. Graduate of the College of Medical Evangelists, Loma Linda, 1924, and licensed in California the same year. Doctor Van Eman was a member of the Imperial County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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## OBITUARIES

**Foster Kyle Collins**

1871-1939

The last words Doctor Collins ever said to me were: "Don't forget you promised to write my obituary," at the conclusion of a little chat in front of his office only a day or so before his death. At the time he expressed himself as much improved and gaining strength daily, and appeared his old genial self. Little did I think as we parted that the melancholy duty of redeeming my promise would arise so soon. I have wondered since if he may not have had some premonition at the time.

Really, there is no occasion for an elaborate eulogy in a case like this. The life he lived, the friends he made, the position he gained as an accomplished and successful surgeon, the record he left of patriotic service in his country's hour of need, the high principles he always exhibited, both as physician and citizen, the love and unfailing confidence of his patients—these constitute sufficient eulogy for any man.

If I, who knew him well for nearly a quarter of a century, were asked what qualities distinguished Doctor Collins, I should promptly answer: modesty, gentleness, dignity, innate kindness of heart, unswerving integrity—in short, those qualities which go to make true nobility of character. And withal he possessed a deep sense of spiritual values which he never lacked the courage to defend. Once, in the course of an intimate conversation, he said to me, "There are many things I cannot understand, but I just accept them without trying to reason them out." We had been discussing the question of immortality.

Doctor Collins would not desire a long and fulsome obituary notice. Let this simple tribute close with the familiar lines—

"His life was gentle and the elements so mixed in him  
That Nature might stand up and say to all the world,  
*This was a man.*"

A. B. COOKE, M. D.

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**Jefferson M. Colburn**

1858-1939

Jefferson M. Colburn, veteran Riverside physician who practiced medicine in Riverside for nearly thirty-five years, died on September 15.

Born in Rutland County, Vermont, Doctor Colburn was educated in the schools of his native place and was graduated from the Black River Academy at Ludlow, Vermont. He later attended the Homeopathic Medical College in Kansas, graduating in 1886, and entered practice in Kansas City, where he remained until he came to Riverside.

After his arrival in Riverside, Doctor Colburn became interested in horticulture. At one time he owned large citrus and other ranch acreage.

Doctor Colburn was married to Miss Della M. Wilmoth in Rutland, Vermont, in 1886. He leaves his wife and two children.

## THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. FREDERICK N. SCATENA.....President  
MRS. WILLIAM C. BOECK.....Chairman on Publicity  
MRS. KARL O. VON HAGEN.....Asst. Chairman on Publicity

### News Letter

The fall board meeting of the Woman's Auxiliary to the California Medical Association was called to order by the president, Mrs. Frederick N. Scatena, at 10 o'clock on September 15 at the Women's City Club in San Francisco. Roll call was answered by all of the officers, the president-elect and the parliamentarian, three of the four councilors-at-large (the fourth having resigned), and five of the nine district councilors—a splendid attendance. Eight presidents of county auxiliaries were also present.

Officers present included Mesdames Frederick N. Scatena, A. E. Anderson, Harry O. Hund, Frank Baxter, G. Wendell Olson, George A. Spencer, C. G. Stadfield, and Hobart Rogers.

Councilors-at-large: Mesdames Harry Henderson, F. G. Lindemulder, and William C. Boeck.

District councilors: Mesdames Harry Huffman, J. R. Walker, Eugene Kilgore, Charles C. Hall, and Miss Julia Koenecke.

County Auxiliary presidents: Mesdames Kaho Daily of Contra Costa County, C. A. DeLancey of Marin County, C. E. Fitzgibbon of Merced County, N. T. Enloe of Butte County, Hans Hartman of Stanislaus County, Raymond V. Rukke of Monterey County, Frederick P. Shenk of Santa Cruz County, and Philip L. Wise of Santa Clara County.

Mrs. John D. Humber of San Francisco will fill the office of councilor-at-large, left vacant by the resignation of Mrs. Harry Oliver. This office carries with it the chairmanship of the State Committee on Public Relations.

The ambitious list of aims presented by Mrs. Scatena was adopted by the Board as an ideal toward which the organization should work. This has to do with the following: increased membership; the organization of more county auxiliaries; the acquisition of more members in each county auxiliary, and the better informing of members as to public health and legislative matters; stimulation of auxiliaries to be ready to assist their respective medical societies in developing interest in public health education: social hygiene, cancer, tuberculosis, the American Medical Association radio programs, and *Hygeia* circulation.

At the invitation of Mrs. Scatena, Mr. Ben Read of the Public Health League spoke briefly about the work lying ahead in campaigning against the chiropractic initiative measure, Proposition No. 2 on the ballot, at the special "Ham and Eggs" election on November 7. Mr. Read urged members to send to the Public Health League for material, and to prepare short talks for programs of their nonmedical organization while inducing everyone to vote.

The usual reports were read and accepted, the clamor for more stationery indicating that a great many letters had been written; a firm foundation of organization for the year's work laid by all committee chairmen.

The group of officers were the guests of the San Francisco County Auxiliary at one of the Women's City Club's excellent luncheons, arranged by Mrs. Eugene Kilgore and presided over by Mrs. Morrissey, the charming president

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Karl O. Von Hagen, Assistant Chairman on Publicity, 5867 Whitworth Drive, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Von Hagen and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

of the San Francisco Auxiliary. They were honored to have with them Mrs. John J. Ryan of St. Paul, Minnesota, Historian of the Woman's Auxiliary to the American Medical Association.

### Component County Auxiliaries

#### *Sacramento County*

The April meeting was held at the home of Mrs. George Iki on April 18. The business meeting was devoted to routine business and to annual reports of standing committee chairmen. Delegates and alternates were selected for the State convention at Del Monte. The Nominating Committee report was given by the chairman, Mrs. C. B. McKee.

Following the business meeting, a fascinating movie film of Alaska was presented by Miss Florence Reckers, who told of her trip to that land and her adventures there.

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A profusion of gay spring flowers decorated the luncheon tables of the Y. W. C. A. for the annual luncheon meeting on May 23, which closed the year's activities. The president, Mrs. George Spencer, presented an inspiring report of the year's work of the Auxiliary. Convention reports also were given by Mrs. Gustave Wilson and Mrs. Norris Jones. The election of officers for 1939-1940 was then held. Mrs. Andrew M. Henderson, past state president, installed the following officers: Mrs. Norris Jones, president; Mrs. Gustave Wilson, first vice-president; Mrs. George Spencer, second vice-president; Mrs. William Harding, treasurer; Mrs. Henry Saverien, recording secretary; and Mrs. S. G. Christian, corresponding secretary. Board members: Mesdames Frederick N. Scatena, Nathan Hale, William Van Den Berg, W. H. Pope, Milton Sarskian, and Michael Lipp.

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The terraced garden of Dr. and Mrs. Frederick Gundrum served as the setting of an elaborate and successful benefit bridge party in June. Mrs. Nathan Hale, Chairman of the Ways and Means Committee, was responsible for the very novel and entertaining program of the afternoon. A Children's Fashion Show was presented by tiny children of Auxiliary members performing as models around the garden pool. This was followed by a dance program presented by local talent. A most successful cake and candy sale was also held with Mrs. E. O. Brown and Mrs. Frank Lee as chairman. Three hundred and fifty women were present. The gratifying results of this party were due to the efforts of the chairman, Mrs. Nathan Hale and her coworkers, Mrs. Frederick Scatena, Mrs. William Van DenBerg, and Mrs. E. O. Brown.

MRS. PAUL H. GUTTMAN, *Publicity Chairman*.

## NEVADA STATE MEDICAL ASSOCIATION

W. H. FROLICH, East Ely.....President  
C. W. WEST, Reno.....President-Elect  
HORACE J. BROWN, Box 698, Reno.....Secretary-Treasurer

The thirty-sixth annual meeting of the Nevada State Medical Association was held in Reno, Nevada, on September 22 and 23, 1939, with headquarters at the Golden Hotel. The program follows:

Friday, September 22  
Lawton Springs

Friday, 9 a. m.

President's Address—W. H. Frolich.

Cutaneous Epitheliomas—Laurence R. Taussig, San Francisco.

Discussion opened by Lawrence Parsons, Moreton Thorpe, and Leland Cowan.

Medical Follies of 1938—Fletcher B. Taylor, Oakland.

Discussion opened by Eugene Gilgore, George Magee, and Hale Slavin.

Principles of Treatment of the Common Contagious Diseases—Edward B. Shaw, San Francisco.

Discussion opened by Lemuel Brigman, Edward Hamer, and Charles Secor.

Paul F. Cadman.

Treatment of Fractures in the Region of the Hip—One-Man Technic—Roger Anderson, Seattle.

Discussion opened by Richard Schofield, A. J. Hood, and H. H. Hitchcock.

Temporal Lobe and Cerebellar Tumors, and Sympathectomy in Angina Pectoris—R. B. Raney, Los Angeles.

Discussion opened by Paul Flothow, Vinton Muller, and R. R. Craig.

### BUSINESS MEETING

Friday, 4 p. m., Lawton Springs

Registration and payment of dues.

Reading of minutes of last annual meeting.

Report of delegate to the American Medical Association.

Report of various committees.

New business.

Unfinished business.

Balloting on new members.

Balloting on honorary membership.

Election of officers.

Selection of place for next annual meeting.

Officers to be elected: One vice-president, secretary-treasurer, one trustee.

Saturday, September 23, 1939

9 a. m., Lawton Springs

Treatment of Small Injuries of the Eye—E. B. Muir, Salt Lake City.

Discussion opened by John Fuller, David Shaw, and Raymond Balcom.

Ear, Nose, and Throat in General Practice—Robert C. Martin, San Francisco.

Discussion opened by Earle Creveling, Olin Moulton, and George Weiss.

Oxygen Therapy—Ralph Richards, Salt Lake City.

Discussion opened by O. Hovenden, Fletcher Taylor, and Edward Shaw.

Treatment of Vascular Lesions of the Extremities—Paul Flothow, Seattle.

Discussion opened by Ralph Richards, R. B. Raney, and C. W. West.

Syphilis of the Central Circulatory System—Eugene Kilgore, San Francisco.

Discussion opened by Laurence Taussig, Louis Lombardi, and B. H. Caples.

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*Chronic Pellagra Is Cured by Means of Nicotinic Acid.* Nicotinic acid will cure chronic pellagra even without a change in the deficient diet that produced the disease, John H. Kooser, M. D., of Hyden, Kentucky, and M. A. Blankenhorn, M. D., of Cincinnati, report in *The Journal of the American Medical Association*.

The experiments with nicotinic acid for chronic forms of the disease were undertaken in view of the remarkable results which the drug is reported to have in acute pellagra.

Forty-one patients seen in an ambulatory clinic in a Kentucky mountain district were studied. None of the patients had a change of diet.

Twenty-eight of the forty-one patients were completely cured and remained well, twelve patients were partially improved, and the condition of one, who was inadequately treated, was unchanged. All of those who were partially relieved were poorly nourished or only fairly well nourished.

While nicotinic acid sometimes aided in the restoration of health, even when the pellagra was cured a considerable amount of ill health, such as anemia, underweight, and diarrhea, persisted among the authors' patients. Relapses also may occur, they state.

Eight patients showed significant gains in weight (five or more pounds). Fourteen showed a loss of one or more pounds. "It is significant that no person who ate more of his poor diet and gained weight thereby had an increase in the severity of pellagra," the authors point out.



## MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

## NEWS

### Coming Meetings.

*American Medical Association*, New York, June 10-14, 1940. Olin West, M. D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

*California Medical Association*, Hotel Del Coronado, Coronado, May 6-9, 1940. George H. Kress, M. D., Secretary, 450 Sutter Street, San Francisco.

*Association of Western Hospitals*, Hotel Biltmore, Los Angeles, April 8-11, 1940. Thomas F. Clark, Executive Secretary, 1182 Market Street, San Francisco.

### Medical Broadcasts.\*

*Los Angeles County Medical Association.*

The radio broadcast program for the Los Angeles County Medical Association for the month of October is as follows:

Thursday, October 5—KECA, 9:45 a. m., The Road of Health.

Saturday, October 7—KFI, 10:30 a. m., The Road of Health; KFAC, 11:45 a. m., Your Doctor and You.

Thursday, October 12—KECA, 9:45 a. m., The Road of Health.

Saturday, October 14—KFI, 10:30 a. m., The Road of Health; KFAC, 11:45 a. m., Your Doctor and You.

Thursday, October 19—KECA, 9:30 a. m., The Road of Health.

Saturday, October 21—KFI, 10:30 a. m., The Road of Health; KFAC, 11:45 a. m., Your Doctor and You.

Thursday, October 26—KECA, 9:30 a. m., The Road of Health.

Saturday, October 28—KFI, 10:30 a. m., The Road of Health; KFAC, 11:45 a. m., Your Doctor and You.

**Striking Results Produced by Diabetic Camp.**—Conclusive proof of the efficacy of fresh air, exercise, and sunshine in the treatment of diabetes was offered by the state-wide diabetic camp for children just ended at Whitaker's Forest, a holding of the University of California in Tulare County. The camp was provided by a number of organizations and friends of the little diabetics, and was the first state-wide institution of its kind in the country, so far as is known.

Evidence that the camp has made possible important new developments in the treatment of the disease was offered by Dr. Mary Olney of the department of pediatrics, University of California Medical School, who was in charge. Doctor Olney noted a remarkable reduction in the amount of insulin required, due to exercise and diet. She found also that the recreation features could be enlarged upon, due to the response made by the children to the general health conditions prevailing. One overnight pack trip was made to General Grant National Park and another to Sequoia National Park. On both occasions the children slept in their blankets on the ground and prepared their meals in the open in camp style, but with critical attention being paid to the items and the quantity of the diet, in keeping with their condition.

\* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

**Sickness Statistics.**—With respect to all sickness and nonindustrial injuries of at least one week's duration, the annual number of cases per one thousand workers for the first quarter of this year (123.5) jumped 25 per cent above the corresponding rate for 1938. It is still 16 per cent below that for 1937, however.

This information is based upon recent reports from twenty-six industrial sick-benefit organizations with memberships of over 170,000 men in nine states and Canada, and compiled by Dr. William M. Gafafer, Senior Statistician, United States Public Health Service.

"The increase," according to Doctor Gafafer (*Public Health Reports*, August 25, 1939), "was apparently caused by the relatively high rate (65.4) of respiratory diseases—principally influenza and grippé. These latter diseases occurred at the rate of forty cases per 100,000 male workers." (This rate was 16.8 per 1,000 workers last year for the corresponding period; 60.9 for 1937.)

Further broken down, the figures show a drop of 1.3 under 1938 in the nonindustrial injuries rate, compared to an increase of from 88.3 to 114.0 per 1,000 men for the general sickness rate. Nonrespiratory, digestive, and nondigestive disease rates have shown slight changes during the last two years.

**Mental Hygiene Society of Northern California.**—The Mental Hygiene Society of Northern California announces a series of lectures on "Mental Health in Action."

Dr. Walter L. Treadway, Medical Director of the United States Public Health Service, formerly assistant surgeon-general, Division of Mental Hygiene of the United States Public Health Service, now on loan at the University of California, will open the series on October 18 with a discussion of "The Poor, The Sick, The Bad." Dean Langley Porter will preside.

On October 25 Dr. Ernest R. Hilgard, Department of Psychology, Stanford University, will speak on "Motives in Industry." Albert A. Rosenshine, attorney, and former president of the Commonwealth Club and former Assemblyman, will preside.

On November 1, Dr. H. E. Chamberlain, Consulting Psychiatrist, State Department of Social Welfare and former director of the Minneapolis Child-Guidance Clinic, will talk on "Mental Hygiene in Everyday Life." Dr. Martha A. Chickering, Director of the California State Department of Social Welfare, will be the chairman.

On November 8 Dr. J. Kasanin, newly appointed director of the psychiatric department of Mount Zion, formerly director of the Michael Reese Hospital, Chicago, will talk on "Psycho-analysis and Mental Health: Can Neurotics Be Cured, and How?" Dr. Ernst Wolff will preside.

The closing speaker on the series will be Dr. Norman Fenton, Director of the California Bureau of Juvenile Research and School of Education, Stanford University. Mr. Charles A. Simonds, Director of Counseling and Guidance in the San Francisco Public Schools, will preside.

All lectures will be followed by discussion. Series, \$2; single tickets, 60 cents. Call WE 7200, Mrs. Frieda Minz. The lectures will take place at Mount Zion Auditorium, 2345 Sutter Street, at 8 p. m.

**Results of Psittacosis Study Made Public.**—The virus of psittacosis, a latent or manifest infection of the parrot and other birds, was recently described in detail by Dr. Karl F. Meyer, Director of the Hooper Foundation for Medical Research of the University of California, and Dr. Alfred S. Lazarus, research fellow in pathology. These investigators conducted long experiments to determine the exact nature of the virus, which was isolated some ten years ago. They came to the conclusion that the infective particle is either the elementary body or microorganism, an invisible particle not separable from the elementary body, or an invisible particle of the same size as the elementary body. The first theory seems the most probable.

The virus is an active infective agent and its action may sometimes have fatal results. "The unfortunate impression conveyed by the term 'parrot fever,' has led to the belief that the parrot is the sole offender, whereas the shell parrakeet plays a significant rôle, especially in California," the report of the two doctors said. "Canaries, finches and other birds may be carriers of the virus and may cause human infections. A bird of the petrel family has been shown to be responsible for outbreaks of human psittacosis."

It was pointed out by Doctor Meyer that psittacosis is not an insect-borne disease, as many believed. The virus acts in all respects as a microorganism requiring an intracellular habitat for multiplication and survival. It was isolated in 1930 by English and German scientists and immunizing agents were then developed. The disease has broken out repeatedly in California, but the close watch kept on the bird carriers has resulted in a sharp decrease in the incidence everywhere.

**Life Span of Mental Defectives Shown to Be Brief.**—While the life span of idiots and imbeciles is brief, as a rule, they seem to live longer in California than elsewhere in the country. This was stated in a paper presented to the forty-seventh annual meeting of the American Psychological Association recently by Oscar Kaplan, graduate student of the University of California.

An analysis of the life duration of 768 idiots and imbeciles who died at the Sonoma State Home in California between 1917 and 1939 revealed that the average span of the 424 imbeciles was 26.60 years and that of the 344 idiots was 19.04. Research has shown that, generally, the death rate of imbeciles is twice as high as that of the general population, while the death rate of idiots is about five times as high.

According to this study, female imbeciles have a 5.65 years greater life expectancy than males, though living under identically the same conditions at the Sonoma home. On the other hand, the idiots exhibit no such sex discrepancy, the males showing some advantage over the women in this particular. The greatest number of female imbecile deaths occur in the period between 16 and 21, whereas the greatest number of male deaths occur between 6 and 11.

"It seems probable that the same factors which produce the longer life span of women in the normal population are operative among the low-grade mental cases, also," Kaplan said.

Kaplan recorded some notable exceptions to the general figures in the study. About 7 per cent of the idiots survive beyond 50 years of age, while the same per cent for imbeciles is 15.80. There is some evidence to show also that imbeciles who come from long-lived parents stand a better chance to exceed the general mortality age.

Kaplan ventured the opinion that "the favorable climate of California may be a factor in the comparatively long life of aments at the Sonoma State Home, as compared with similar institutions elsewhere. The patients are able to remain out of doors for long periods of the year, and this is especially significant since respiratory disease is the leading cause of death.

**Postgraduate Symposium on Heart Disease for Practicing Physicians.**—The tenth annual postgraduate symposium on heart disease, given by the Heart Committee of the San Francisco County Medical Society, will be held in San Francisco November 16, 17, and 18, 1939. There will be morning, afternoon, and evening sessions, which will be held at the University of California Hospital, Stanford University Hospital, and San Francisco Hospital. The course will include demonstration of patients presenting problems in the various types of heart disease, discussion and evaluation of specific diagnostic procedures and therapy, and differential diagnosis, and treatment. There will be ward rounds, and special classes in x-ray, fluoroscopy, and electrocardiography.

A dinner meeting will be held on the opening night of the symposium, at which time Dr. William Dock, Professor of Pathology of Stanford University Medical School, will be the speaker.

The program for the symposium is being arranged by the following physicians: Doctors Richard D. Friedlander, Dorothy Atkinson, F. L. Chamberlain, Gordon E. Hein, William J. Kerr, Charles Noble, Jr., Ann P. Purdy, J. Marion Read, and Francis Rochex.

There will be a registration fee of \$15. Applications for registration and programs should be addressed to the San Francisco Heart Committee, 604 Mission Street, Room 802, San Francisco.

**American Public Health Association.**—Almost thirty-five hundred health officers, nurses, engineers, school physicians, laboratory directors and other health specialists will attend the sixty-eighth annual meeting of the American Public Health Association and meetings of related organizations in Pittsburgh, Pennsylvania, beginning Sunday, October 15 and ending Friday, October 20.

Every state in the Union, Canada, Cuba, and Mexico, and many European countries will send their health leaders to participate in a scientific program embracing the official public health activities of the North American continent.

On Sunday, October 15, the Sixth Institute on Public Health Education begins. The Institute continues on Monday, October 16, and the International Society of Medical Health Officers, the American School Health Association, the Association of Women in Public Health, and the National Organization for Public Health Nursing also meet. Five conference groups convene on Monday: state laboratory directors, state sanitary engineers, municipal public health engineers, directors of local health service, and state directors of public health nursing.

Six general sessions throughout the week will engage the attention of all delegates. Medical Care, Cancer, Professional Education, The American Way as Seen from Abroad, are among the subjects chosen for the general assemblies.

The ten Sections of the Association have arranged an extensive series of joint and individual meetings covering topics of interest to health officers, laboratory workers, vital statisticians, industrial hygienists, public health engineers, food and nutritionists, child hygienists, public health education experts, epidemiologists, and public health nurses.

Other organizations meeting during the week are the Pennsylvania Public Health Association, the Tri-State Food and Health Officials, the American Social Hygiene Association, Delta Omega, and the American Association of State Registration Executives.

An extensive health exhibit featuring commercial and scientific displays is an important part of the meeting.

Headquarters will be the William Penn Hotel.

The preliminary program has been reprinted from the August issue of the *American Journal of Public Health* and may be obtained from the American Public Health Association, 50 West Fiftieth Street, New York, N. Y.



**Evening Medical Dictation Class.**—The Oakland public schools recently announced that an evening medical dictation class had started on September 11. Meetings were on Monday and Wednesday evenings from 8:15 to 9:15 for a period of six weeks. Sessions will be repeated as often as the demand may justify.

This class was instructed by Miss Josephine Chiesa, nationally known shorthand champion, and was devoted entirely to a study of medical terms, outlines, and shortcuts. The course was open only to those who could take dictation at a good rate of speed. The registration fee was 75 cents.

Other metropolitan school districts may wish to consider the institution of such a course for medical secretaries.

**Deaths From Catastrophes Fewer This Year.**—With the picture of the ill-fated *Squalus* vivid in our mind's eye, and the memory of the disastrous April tornadoes in the South Central States still fresh, it comes as a surprise to be told that the first six months of the current year compare favorably with most other years in the death toll from major catastrophes. . . .

While it is true that a few disasters may not have been reported in the daily press, the record, it is believed, is reasonably complete. The number of accidents in which five or more people were killed in the first half of the year, as reported by the agencies mentioned, was twenty-nine, with a total loss of life of 266. During the first half of the three preceding years there was an average of forty-five multiple-fatality accidents, with an average total loss of about 750 lives. In 1938, between January and July, there were 57 major accidents, which took 771 lives in all. Chiefly contributing to this toll were the devastating floods in Southern California (181 lives); two tornadoes in the Mid-Western States (62 lives); a tornado at Rodessa, Louisiana (25 lives); a railroad accident in Montana (47 lives); a mine explosion in Virginia (45 lives); and a hotel fire in Atlanta, Georgia (35 lives).

A large part of the loss of life in multiple-fatality accidents results from those in which a relatively small number of persons, namely, five to ten, lose their lives. Burning homes and automobile accidents figure prominently in tragedies of this kind. Other major disasters, however, also play a prominent part every year. Running through the record for the last decade, it was found that not a single year went by but that at least one accident occurred with thirty or more fatalities during the period corresponding to the six months just past, and in some years there were as many as five such accidents before the first of July. Natural catastrophes, as distinguished from those resulting from the acts of man, contributed very heavily to the general total. Tornadoes in Mississippi, Alabama, and Georgia took 402 lives in April, 1936; in Alabama, Georgia, Tennessee, Kentucky, and South Carolina, more than 360 lives in March, 1932; a flood in Southern California, 181 lives in February and March, 1938; the Ohio-Mississippi Valley flood, 137 lives in January and February, 1937; and the earthquake in Long Beach, California, 120 lives in March, 1933.

Almost as devastating in their effects as these cataclysms were the fire in the Ohio State Penitentiary at Columbus (320 lives) in April, 1930; and the explosion in the New London, Texas, school (294 lives) in March, 1937.

Government and industry have done much to reduce the hazard of mass loss of life in floods and forest fires, and in mine, steamboat, and railroad disasters. Nevertheless, it is clear that much still remains to be done in preventing these serious accidents when a three-year average for the first six months of the year runs to 750 fatalities; and even in an exceptionally favorable year, such as the current one, the figure is still more than 250.

**Southwestern Pediatric Society.**—Dr. Joseph Brenne-man presented the 1939 course of lectures and clinical discussions, an annual event sponsored by the Southwestern Pediatric Society. Over one hundred California pediatricians were in attendance at the three meetings, held at the Los Angeles Children's Hospital on September 14 and 15.

**Death Comes to Miss Hafford.**—Miss Eloise A. Hafford, a pioneer in the movement to control venereal diseases in California, died on July 10, 1939. The most recent achievement of Miss Hafford was the passage of laws requiring prenatal and premarital examinations for syphilis. Although advanced in years, she stayed in Sacramento during the entire 1939 legislative session, tirelessly working in the interests of the bills.

For many years Miss Hafford engaged in educational work, in the prevention of venereal diseases. She was actively interested in Ruth Home, Los Angeles, and in the Pacific Protective Society, Oakland, both of which admit infected girls and young women for institutional care. She organized the Southern California Society for the Control of Syphilis and Gonorrhea and was executive secretary of the Society at the time of her death.—*Weekly Bulletin, California State Department of Public Health*, August 5.

**Annual Meeting of Academy of Ophthalmology and Otolaryngology.**—The forty-fourth annual meeting of the American Academy of Ophthalmology and Otolaryngology will be held in Chicago October 8-13 at the Palmer House. The Academy will again present its elaborate courses of instruction, with more than one hundred specialists as teachers; four afternoon programs of motion pictures and a scientific exhibit, in addition to its formal scientific program.

There will be one joint session at which Dr. George M. Coates, Philadelphia, will deliver his presidential address and Dr. Burt R. Shurly, Detroit, will be introduced as the Academy's guest of honor for the year and will deliver an address.

At this session a symposium on essential hypertension will be presented by Drs. Albert C. Furstenberg, Ann Arbor, Michigan, speaking from the standpoint of the otolaryngologist; Henry P. Wagener, Rochester, Minnesota, the ophthalmologist; and Roy W. Scott, Cleveland, the internist.

Two foreign guests will address the section meetings, which will be held on alternate afternoons. These guests are Prof. Joseph Igersheimer, Istanbul, Turkey, who will discuss "The Optic Nerve and Diseases of Hypertension," and Arthur DeSa, Pernambuco, Brazil, who is to speak on "Ethmoiditis."

**Mount Zion Hospital: Psychiatric Department.**—With the increased recognition of the importance of psychiatry in general medicine, and with the growing demand for more psychiatric service, a separate psychiatric department was organized at the Mount Zion Hospital in San Francisco by reorganizing the department of neuropsychiatry into two independent services—the Neurological Service and the Psychiatric Service. Dr. J. Kasanin, Director of the Psychiatric Department of the Michael Reese Hospital, Chicago, Illinois, and Assistant Professor of Psychiatry at the Rush Medical College, University of Chicago, has been appointed as chief of the service. Associated with him will be Dr. Mervyn Hirschfeld, Assistant Professor of Neurology at the University of California Medical School, who for many years has been interested in the development of such a Service. A great deal of attention will be paid to the development of the work

in child psychiatry, which will be under the direction of Dr. Joseph C. Solomon, formerly on the staff of the Baltimore Child-Guidance Clinic. Dr. William M. Cameron has been appointed as resident psychiatrist, and Miss Pearl J. Lowenstein, M. S. S., will be in charge of psychiatric social service work. Other appointments will follow later. The clinic will attempt to meet the needs of the hospital and, to some extent, of the local community.

In its research program the clinic will attempt to perfect more effective methods of therapy of the various neuroses both in adult and children, which are commonly found in medical practice. Especial attention will be paid to the field of psychosomatic medicine which is coming into prominence at the present time.

**American Board of Obstetrics and Gynecology: \* Examinations.**—The next written examination and review of case histories (Part I) for Group B candidates will be held in various cities of the United States and Canada on Saturday, January 6, 1940, at 2 p. m. The Board announces that it will hold only one Group B, Part I, examination this year prior to the final general examination (Part II), instead of two as in former years. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held in June, 1940.

*Applications for admission to Group B, Part I, examinations must be on file in the Secretary's office not later than October 4, 1939.*

The general oral and pathologic examinations (Part II) for all candidates (Groups A and B) will be conducted by the entire board, meeting in Atlantic City, New Jersey, on June 8, 9, 10, and 11, 1940, immediately prior to the annual meeting of the American Medical Association in New York City.

Applications for admission to Group A, Part II examinations must be on file in the Secretary's office not later than March 15, 1940.

After January 1, 1942, there will be only one classification of candidates, and all will be required to take the Part I examinations (written paper and case records) and the Part II examinations (pathologic and oral).

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

**Longevity of the American People Increasing.**—The health of the American people is getting better all the time, and their average length of life is increasing accordingly.

Since the turn of the century the average length of life of the white boy baby has increased by 12½ years; in 1937 his expectation of life at birth was 60.75 years, whereas in 1901 it was only 48.23 years. For the white girl baby the gain in average length of life over the same period has been even greater and amounts to 14 years, the improvement being from an expectation of life at birth of 51.08 years in 1901 to one of 65.08 years in 1937. Our women do better than our men by four years and four months.

These gains have been accomplished despite the World War, an influenza pandemic which destroyed even more human lives than did the War, and the greatest economic upheaval of generations, with its health-menacing potentialities.

An even more striking measure of the improvement in longevity since the beginning of the century than that provided by the expectation of life at birth is found in the proportions of the babies born who survive to later years of age. In 1901 less than nine out of every ten white male babies born alive survived to reach their first birthday.

However, by 1937 health conditions had improved to such an extent that at least nine out of every ten newly born will attain age 24. Among white girl babies, too, less than nine out of every ten born in 1901 survived their first year of life; but in 1937 the conditions were such that nine out of every ten babies will reach age 32. According to the situation prevailing in 1901, almost half of the white male babies would have died before attaining age 57, while the halfway mark on the basis of health conditions in 1937 was at 67 years. For white females the corresponding ages were 61 years in 1901 and 72 in 1937. With half our womenfolk surviving beyond the seventy-year mark, we can well understand why our population is rapidly growing older.

On the whole, the improvement in longevity since the opening years of this century was concentrated largely in its second and third decades.

When compared with most of the countries for which data are available, the United States now ranks very high in expectation of life at birth. Thus, in recent comparable periods, the expectation of life at birth in the United States was greater than that in Belgium by about three years, Czechoslovakia by almost eight years, England and Wales by a little over one-half year, Irish Free State by 3¼ years, Finland by six years, France by 4¾ years, Germany by somewhat over one year, Italy by almost 6½ years, Poland by 12½ years, and Scotland by four years. Switzerland, in the period from 1929 to 1932, and the Union of South Africa, in 1936, had expectations of life at birth not far different from that of white persons in the United States in the same periods. On the other hand, the Scandinavian countries, Australia, and New Zealand still rank above the United States in average length of life. The differences in favor of these countries in recent comparable periods are: Sweden, two years; Denmark, one-half year; Norway, 2¾ years; Netherlands, 3½ years; Australia, 2¾ years; and New Zealand, 4¾ years. Although these countries make better showings than the United States as a whole, several of our states compare favorably with them. These states, which form a solid block in the Midwest, include the Dakotas, Iowa, Kansas, and Nebraska.

Although the expectation of life at birth in the United States is continuing in its upward trend, the pace has slackened in more recent years. This situation may be quite normal, for it could hardly be expected that the rapid advance experienced in the years from 1910 to 1930 could continue indefinitely into the future. There is, however, no good reason why the improvement in our longevity should not be fast enough to enable us to catch up, in a relatively short time, with those countries whose expectations of life at birth are now greater than ours. Certainly we have available the knowledge, skill, and wealth which should help us into first place among the countries of the world in regard to longevity.

**Annual Session: Department of Health Officers.**—The Department of Health Officers, League of California Municipalities, held its annual session in Oakland on September 18 to 20, 1939, with headquarters in the Hotel Oakland. The program follows:

Monday, September 18

9 a. m. Registration

9:30 a. m.

South Room

Presiding: W. A. Powell, President, Department of Health Officers, League of California Municipalities. Health Officer, Contra Costa County, Martinez.

Address of Welcome: N. N. Ashley, M. D., City Health Officer, Oakland.

Response: Herbert F. True, M. D., Representative of Health Officers Board of Directors, League of California Municipalities, City Health Officer, Sacramento.

\* For roster of approved examining boards in medical specialties and other information, see Educational Number of *The Journal of the American Medical Association*, August 26, 1939, pp. 800-824.



Report of the Secretary: Walter M. Dickie, M. D., Secretary of Department of Health Officers, Director of Public Health, California State Department of Public Health, Sacramento.

Qualification Standards for Public Health Workers: Medical Director F. A. Carmelia, United States Public Health Service, San Francisco.

Announcement of Committee Appointments.

10:30 a. m.

General Session, League of California Municipalities.

2 p. m.

South Room

Presiding: Frank L. Kelly, M. D., City Health Officer, Berkeley.

#### ROUND-TABLE DISCUSSIONS

##### I. Present Status of Tuberculosis Control

Blue Room

Leader: W. R. P. Clark, M. D., Member, California State Board of Public Health, San Francisco.

C. T. Roome, M. D., City Health Officer, Santa Barbara.

A. M. Lesem, M. D., Director of Public Health, City and County of San Diego.

P. K. Telford, M. D., Chief, Tuberculosis Services, Los Angeles County Health Department, Los Angeles.

N. N. Ashley, M. D., City Health Officer, Oakland.

##### II. Nutrition

West Room

Leader: Myrnie Gifford, M. D., Assistant Health Officer, Bakersfield.

W. F. Stein, M. D., Health Officer, Fresno County, Fresno.

Olive V. Cordua, M. D., Chief, Bureau of Child Hygiene, Department of Public Health, San Diego.

Lillian Brinkman, Chief, Nutrition Services, Bureau of Child Hygiene, State Department of Public Health, San Francisco.

H. C. Brown, M. D., City Health Officer, San Jose.

##### III. Dental Care of Children

South Room

Leader: Guy S. Millberry, D. D. S., Professor of Dental Health Education, University of California College of Dentistry, San Francisco.

J. J. Sippy, M. D., Health Officer, San Joaquin Local Health District, Stockton.

C. G. Gillespie, C. E., Chief, Bureau of Sanitary Engineering, California State Department of Public Health, Berkeley.

E. Pearl Hannah, D. D. S., Director, School Dental Clinic, Palo Alto.

3:30 p. m.

South Room

Summaries of round-table discussions by leaders of respective groups.

Tuesday, September 19

9:00 a. m.

South Room

Presiding: J. C. Geiger, M. D., Director of Public Health, San Francisco.

##### Symposium on Epidemic Poliomyelitis

Present Status of Chemoprophylaxis in Epidemic Poliomyelitis—E. W. Schultz, M. D., Department of Bacteriology and Experimental Pathology, Stanford University, California.

Criteria on Diagnosis of Epidemic Poliomyelitis—Edward B. Shaw, M. D., Children's Hospital, San Francisco.

After-Care of Epidemic Poliomyelitis—Donald E. King, M. D., Stanford Hospital, San Francisco.

2 p. m.

South Room

Presiding: John D. Fuller, M. D., County Health Officer, Santa Cruz.

#### ROUND-TABLE DISCUSSIONS

##### I. Control of Communicable Diseases

South Room

Leader: George Parrish, M. D., City Health Officer, Los Angeles.

E. M. Bingham, M. D., Health Officer, San Luis Obispo.

W. W. Fenton, M. D., Health Officer, San Bernardino County, San Bernardino.

G. E. McDonald, M. D., City Health Officer, Long Beach.

H. L. Wynns, M. D., Chief, Bureau of Epidemiology, State Department of Public Health, San Francisco.

##### II. The Control of Syphilis and Gonorrhea

Venetian Room

Leader: H. F. True, M. D., City Health Officer, Sacramento.

H. M. Elliott, M. D., Chief, Bureau of Venereal Diseases, Los Angeles City Health Department, Los Angeles.

G. H. Becker, M. D., Chief, Bureau of Epidemiology, San Francisco Department of Public Health, San Francisco.

Warren F. Fox, M. D., Health Officer, Imperial County, El Centro.

M. H. Merrill, M. D., Chief, Bureau of Venereal Diseases, California State Department of Public Health.

##### III. Immunization Program

Blue Room

Leader: Ellis Sox, M. D., Health Officer, Tulare County, Visalia.

A. F. Brewer, M. D., Health Officer, Solano County, Fairfield.

C. M. Burchfiel, M. D., Health Officer, Santa Clara County, San Jose.

Louis Olsen, City Health Officer, Palo Alto.

3:30 p. m.

South Room

Summaries by leaders of respective groups on round-table discussions.

6 p. m.

Annual Banquet, Department of Health Officers, League of California Municipalities, Fiesta Room, City Club Hotel, 1423 Alice Street.

Wednesday, September 20

10 a. m.

Cameo Room

Presiding: I. O. Church, M. D., Health Officer, Alameda County, San Leandro.

Trichinosis—Mrs. Katha Zahn, Albany.

Pest Control in Rural Areas—Edward T. Ross, Chief, Bureau of Sanitary Inspections, California State Department of Public Health, San Francisco.

Mussel Poisoning—Hermann Sommer, Ph. D., Hooper Foundation for Medical Research, Medical Center, San Francisco.

Sewage Disposal Plants for Small Homes—Roy E. Dodson, Jr., Sanitary Engineer, Contra Costa County Health Department, Martinez.

Business session.

Report of committees.

Report of Representative on Board of Directors, League of California Municipalities.

Election of officers.

2 p. m.

Cameo Room

Presiding: A. M. Lesem, M. D., Director, Department of Public Health, San Diego City and County, San Diego.

#### ROUND-TABLE DISCUSSIONS

##### I. Food Poisoning

Cameo Room

Leader: Roy Gilbert, M. D., Assistant Health Officer, Los Angeles County, Los Angeles.

C. C. Gans, M. D., Health Officer, San Mateo County, Redwood City.

I. O. Church, M. D., Health Officer, Alameda County, San Leandro.

C. R. Wylie, County Health Officer, Ventura County, Ventura.

D. M. Bissell, M. D., Health Officer, Monterey County, Salinas.

##### II. Mosquito and Malaria Control

Room 107

Leader: Harold F. Gray, Superintendent, Alameda County Mosquito Abatement District, Court House, Oakland.

E. F. Reamer, M. D., Health Officer, Stanislaus County, Modesto.

John O. Raffety, M. D., Health Officer, Yolo County, Woodland.

Harold R. Hennessey, Health Officer, Sutter and Yuba Counties, Yuba City.

Lee A. Stone, M. D., Health Officer, Madera County, Madera.

##### III. Public Relations and Health Education

Room 101

Leader: R. L. Kaufman, M. D., County Health Officer, Riverside.

B. L. Zinnamon, M. D., Health Officer, Sonoma County, Santa Rosa.

Mrs. Ann Wilson Haynes, Public Information Editor, California State Department of Public Health, San Francisco. J. D. Fuller, M. D., Health Officer, Santa Cruz County, Santa Cruz.

3:30 p. m.

Cameo Room

Summaries of round-table discussions by leaders of respective groups.

**Press Clippings.**—Some news items from the daily press on matters related to medical practice follow:

#### Olson Urges Dental Program to Avert State Control Plan

Unless dentists cooperate in a program under which public health shall be made available for all the people of California, regardless of economic status, they face "an enforced public health policy, controlled by the State."

Such was the greeting given three thousand dentists of the Pacific Coast, assembled yesterday at the Fairmont Hotel for the Golden Gate Dental Congress observing one hundred years of organized dentistry, by Governor Olson. The luncheon marked the beginning of a four-day session of the congress, in which are joined the California State Dental Association, Dr. Howard B. Kirtland, president, and the Southern California State Dental Association, Dr. Stanley Rice, president.

#### Outlines Objectives

"Your State government," began Governor Olson after he had paid high tribute to the integrity of the dental profession, "is engaged in a program to see that the fullest measure of public health is extended, not only to those who can afford to pay fully or partially for it, but to those who can pay nothing—to all the people.

"This means that the members of your profession, like the men and women of the medical profession, must give up part of your individual gain.

"This will be more than repaid to you by the knowledge that you are contributing to human progress, to the public health, to the general welfare of the State.

#### Sure of Cooperation

"I am sure your profession will cooperate, as it always has in the past where humanitarian measures are paramount. But if this cooperation is not forthcoming, rest assured that you will face an enforced public health policy, controlled by the State. It is inevitable.

"The public health needs of the people must not be controlled by purely mercenary considerations."

Following the luncheon the dentists gathered in seven sections to hear addresses, papers and demonstrations by the leaders of the profession from all over the world.

The sections and chairmen were: Dental schools, Dr. Willard C. Fleming; dentistry for children, Dr. Edwin C. Randol; oral medicine, Dr. Hermann Becks; operative dentistry, Dr. Harry E. Frisbie; radiography and oral surgery, Dr. Hans W. Sorensen; partial denture prosthesis, Dr. Alver Selberg, and full denture prosthesis, Dr. Jack Werner.—San Francisco *Chronicle*, September 26.

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#### Court Upholds Exclusion of Osteopaths from Florida Municipal Hospital

A municipality, according to the circuit court, eleventh judicial circuit, Florida, in the recent case of *Richardson*, an osteopath, vs. *Miami*, may through its proper officers and agents regulate the use of the facilities of a hospital it operates and unless a practitioner can qualify under the regulations that have been adopted he may not complain to the courts over being denied admittance. No member of any school of medicine, the court pointed out, has such a right to the privileges of a municipal hospital, and even though the Florida osteopathic practice act undertakes to accord to osteopaths "the same rights as physicians and surgeons of other schools of medicine with respect to the treatment of cases or holding of offices in public institutions," that act regulates the practice of osteopaths, not the operation of hospitals.—*Journal of the American Medical Association*, Sept. 23, 1939.

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#### All-Time Registration Record Predicted

Sacramento, Sept. 20 (AP).—An all-time State record registration of 3,750,000 voters for the November 7 special election was predicted today by Deputy Secretary of State Charles J. Hagerty.

The estimate by the State's election expert highlighted an accumulation of facts, figures and informal guesswork at the Capitol nine days in advance of the registration deadline.

A member of the Governor's staff estimated the special election—first in four years—would attract about 70 per cent of the registered voters. On the basis of Hagerty's estimate, that would bring 2,625,000 persons to the polls.

Establishing a new high mark, 3,611,000 voters registered for the 1938 general election in which the "ham and eggs" pension plan, chief issue of the present campaign, was defeated. Almost 75 per cent of that number, or 2,695,904, actually voted. "Thirty Thursday" lost by a margin of 1,143,670 for to 1,398,999 against. Reappearance of the ham and eggs proposition has boosted registration.—San Francisco *Chronicle*.

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#### Fields Urges Pay Patients at Hospital

Establishment of a policy to permit admittance of part-pay patients to Butte County's new county hospital was advocated by Supervisor R. E. Fields Monday afternoon when the supervisors considered a request of a Chico almond worker that his wife be given hospitalization.

Fields asserted 12 per cent of the population falls in the class that is not indigent and yet cannot afford private hospitalization.

He said such persons want to "hold their heads up" and pay for hospital care. However, private hospitalization expenses often would saddle them with a debt from which they could not recover and might force them ultimately on indigent rolls, he added.

John Patterson, who asked that his wife be admitted to the institution, said he is earning \$3 a day as an almond harvest worker and has lived in the county twenty-eight years.

Although unable to admit the woman as an indigent, supervisors voted to permit her to enter the hospital as an emergency case, on recommendation of Dr. E. L. Meyers, assistant county health officer, who said she needed immediate hospital care.—Oroville *Mercury-Register*, August 29.

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#### Tehama County Supervisors Adopt Plan for Pay Patients Board Reserves Right to Employ Hospital Nurses

Patients who cannot afford private hospitalization may now be admitted to the Tehama County Hospital, provided certain requirements are met as outlined by the board of supervisors.

Meeting in the joint session with the Tehama County Welfare Board, the supervisors yesterday passed on a modified plan governing the operation of the county hospital.

#### Flat Rate to Be Charged

It was agreed that patients who cannot afford to pay for private hospital facilities may be admitted to the county hospital if certain requirements are fulfilled.

The patient will be charged a flat rate, according to the type of treatment received.

If the patient cannot meet the obligation the board of supervisors is empowered to prorrate the bill.

The county welfare director, or her assistants, will investigate each case to determine entrance qualifications.

Another feature of the modified hospital plan is that all physicians will be permitted to call on their own patients at the hospital.

Milton Hull, county clerk, was instructed to notify the Tehama County Medical Association of the new plan.

#### Long Fight Ended

Adoption by the supervisors of the plan, drawn up by the welfare board several weeks ago, brings to an end a long fight for the inclusion of pay patients to the county hospital.

The campaign was led by the grange and farm bureau.

The plan, introduced on a statewide basis, was defeated in the last Legislature.

The Tehama County Board of Supervisors at first adopted the plan in principle. Details of the project were turned over to the welfare board.

One of the outstanding recommendations of the welfare board was for a manager of the hospital who will be responsible for the maintenance of the unit.

#### Manager Named

The original plan submitted by the welfare board was adopted by the supervisors with the stipulation that certain modifications be made that would tend to cut down the 1939-40 budget.

Joseph Carlisle, who has been employed at the hospital for some time in a general capacity, was appointed as manager with a salary raise to \$100 a month.

At yesterday's meeting it was agreed that all purchases for the hospital will be made on bids approved by the board of supervisors on specified requisition forms.

#### Board to Name Nurses

Other purchases made without bid must also be approved by the board.



The supervisors were empowered to employ and dismiss all nurses. Hiring was formerly handled by the county physician.

The head nurse will be selected by the board of supervisors from the applications on file. She must be a graduate of an approved state or equivalent training school.

The head nurse will be in charge of all other nurses, including those on special duty.

Members of the welfare board present at yesterday's meeting, whose hospital recommendations were unanimously approved by the supervisors, were Mrs. T. B. Winkenhof, chairman; W. J. Harrington, secretary, and H. K. Shirk.—Red Bluff News, August 29.

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#### Doctor Cushman Resigns Post

*Mendocino Hospital Superintendent Will Retire After Fifty-six Years of Professional Career*

The resignation of Dr. R. A. Cushman, for the past seven years superintendent of the Mendocino State Hospital at Talmage, is being tendered, effective October 1, it was announced yesterday.

Doctor Cushman, who is 83 years of age and one of the oldest physicians in California, will retire to live at Cloverdale after fifty-six years of active professional life.

Meanwhile, it was learned that Dr. Walter A. Rapaport, a one-time medical assistant at the institution and now on the staff of the State Hospital at Napa, is slated to step into Doctor Cushman's position.—San Francisco Examiner, September 5.

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#### "California Citizens" Act to Stem Migrant Influx

Bakersfield, Aug. 24.—With three hundred thousand migrants already in California and more coming daily, Thomas W. McManus announced today that he would again take up the cudgels for an effective solution of the problem.

McManus, secretary of the California Citizens Association, last year drew national attention to the acute situation and aroused public opinion to the point where congressional action was promised.

"But Congress failed to act, and as a result we are being saddled with social problems that belong to Texas and Oklahoma," he said.

#### 20 Per Cent Gain

The migration, which thinned to a trickle while the Citizens Association was active, is now 20 per cent larger than last summer.

Pointing to the soaring cost of taking care of migrants after they achieve what he called an "artificial citizenship" by living off the Farm Security Administration for one year, McManus declared Kern County's budget of more than twelve million dollars was twice as much as the 1939-40 budget for the entire state of Arizona.

McManus accused politicians, professional charity workers and bureaucrats with "fumbling and refusing to deal realistically" with the problem.

He branded proposals for colonizing migrants and putting them in self-help, coöperatives as "visionary, lazy and desperate attempts to temporize with a vexing problem."

"The fallacy of all these proposals is that they are directed at caring for the migrants at the expense of California taxpayers," he said.

"We all want to see the sick, the old, and the blind assisted—and certainly a feeling of sympathy and a desire to help the unfortunate are not the exclusive property of left-wing visionaries—but we cannot do more and we cannot go on doing what we have done in the past without lowering California's standards."

#### Compliments Farm Security Administration

McManus complimented the Farm Security Administration for "beginning to respect the California viewpoint." He referred to a radio broadcast in Arkansas, Missouri, Kansas, New Mexico, Oklahoma and Texas, in which the unemployed were told to stay out of California.

McManus said the Citizens Association would form a unit organization in the major agricultural valleys in an effort to save the tax structure from collapse, threatened by the growing tax burden.—Los Angeles Herald and Express, August 24.

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#### Medicine Goes to Migrants

*Four Auto-Clinics Try to Meet Serious Problems*  
(By NEA Service)

Visalia, Aug. 28.—Medicine is coming to California's migratory workers, called to public attention by John Steinbeck's novel, "The Grapes of Wrath."

With four auto-clinics, the State is meeting one of the greatest medical problems of all time.

The roving workers can't afford to go to a doctor's office—so the doctor's office is being brought to them. And spread of epidemics from farm to farm, from field to field, is being checked.

From many states come the migrants to follow the crops. Their poverty, their nomad life make them very susceptible to contagious diseases. There are more than fifty thousand of these families and their living conditions range from absolute squalor to the comparative luxury of Federal Farm Security Administration camps.

Each mobile clinic is staffed by a physician, a nurse, a sanitation expert. Each is equipped like a doctor's office. Each roams agricultural areas with the families, giving care when care is needed.

Chief goal of the squadron is immunization. Since 1937, the State's Department of Public Health has vaccinated 23,701 workers against smallpox, inoculated 74,257 against typhoid fever. The prevention program has cut down the State's typhoid death rate to the lowest point in history.

Job of the sanitation experts is to check conditions in all camps and settlements. Drainage, sewage disposal, source of water supply must be inspected.

If conditions in a squatters' camp do not meet requirements, the entire population may be compelled to move to a new location. In a camp maintained by a grower, the owner is ordered to correct the trouble.

Should an emergency case arise, the clinics are ready. Rear ends of the station wagons are sometimes used as operating tables.

In a newly inaugurated auto-clinic survey, Wassermann tests are being made to find prevalence of syphilis. Early results indicate that there is less venereal disease among the migrants than among permanent residents.

Dovetailed with the clinic work is the recently established medical program of the Agricultural Workers' Health and Medical Association—a nonprofit corporation of Federal and state organizations. Farm Security Administration funds pay for medical care for workers treated in camp clinics and the offices of private physicians.

Dr. W. M. Dickie, State Director of Public Health, says: "We were shocked into doing something by the sight of migratory workers living under wretched, insanitary conditions."—San Francisco News, August 28.

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#### No Health Decline Due to Migrants

Predictions that the health of Californians would be endangered by the influx of migrants have not materialized, Dr. W. M. Dickie, State Health Director, announced today.

This promises to be an exceptionally good health year, said Doctor Dickie. He attributed this to the immunization during the past three years of thousands of migratory agricultural workers by State and local public health officers.

The incidence of diphtheria and typhoid fever during the first seven months of this year was lower than during the same period last year, said Doctor Dickie. A decline in malaria cases also was reported.—San Francisco News, September 2.

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#### Migrant Medical Aid in Two States Totals \$982,207

*Valley Farm Workers Receive Services Costing Coöperative \$300,500*

A total of \$982,207 was expended by the Agricultural Workers Health and Medical Association in California and Arizona since the governmental coöperative was established March 4, 1938. Medical and dental care was provided for 24,994 persons.

This was revealed by Robert J. Graves of San Francisco, secretary-treasurer of the Association, in a report submitted at the first annual meeting of the membership, held late yesterday in the T. W. Patterson Building.

In his report to the directors Graves said the Association membership as of June 30 totaled 13,055 in the two states and operated on a budget of \$1,082,000. Of the \$982,207 actually expended \$811,000 represented medical and dental care for migrant farm workers and the balance of \$171,207 covered administrative costs, including clinics, equipment, salaries, supplies, travel, rent and utilities.

Directors of the Association reelected are Dr. Karl L. Schaupp, representing the California Medical Association; Dr. W. R. P. Clark, State Board of Health; Dr. Albert E. Larsen, medical director of the SRA; Jonathan Garst, regional director of the FSA; Ralph W. Hollenberg, assistant regional director of the FSA; Omer Mills, regional FSA economist, and Graves, regional finance manager of the FSA. The directors are all from San Francisco.

#### Retains Directorship

Garst, who recently was appointed director of the eleven western states for the distribution of surplus commodities,

is being replaced by Lawrence Hughes as regional FSA director. However, he is retaining his directorship in the health association.

Graves reported the Association has 9,380 members in California and 3,675 members in Arizona. He said migrant farm workers living in the San Joaquin Valley received medical and dental services costing \$300,500. The California expenditure amounted to \$638,000 and Arizona \$173,000.

1,259 in Fresno County

A breakdown of the figures for the valley shows 1,259 migrants in Fresno County were given medical care, at a cost of \$112,000; 1,712 in Tulare and Kings counties, for \$109,000; 1,237 in Merced and Madera counties, \$90,500, and 1,220 in Kern County, at a cost of \$79,000.

Since the operation of the Association began 24,994 individuals have been treated in the two states, with professional services rendered by 700 physicians and 150 dentists. Prescriptions were filled by 900 druggists and 100 hospitals participated in the health movement.

Seventeen clinics are in operation in migrant labor camps, five of them in Arizona, and the remainder in California, including Farmersville, Arvin, Shafter, Calipatria, Westley, Marysville, Winters, Gridley, Windsor, Indio, Brawley and Thornton. Another clinic is being opened in the near future at Firebaugh.

Richard W. Lyon is the general manager of the Association and H. E. Stevenson is the executive officer, both working out of the main office here.—Fresno Bee and Republican, August 26.

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#### Doctors Want Pay for Charity

*Hit Back at Boost in Income Taxes, Send \$35,000 Bill*

Money Will Go to Charity Fund So Territory Can't Touch It

When the Territorial Legislature raised the gross income tax of doctors at its last session from one-half of 1 per cent to 1½ per cent, the same as for commercial business, it was figured that the Territory would increase its gross income tax by \$163,000, from the doctors, a tidy sum.

Action last night during a regular meeting of Honolulu County Medical Society resulted in assurance that this bitter pill would be sugar-coated to the tune of at least \$35,000 because a resolution was passed that the Medical Society adopt the policy of requiring all of its members to make a nominal charge of \$1 a day per patient against all hospitals doing government indigent work in which there has heretofore been no compensation to the doctor.

#### Charity Fund

The estimated \$35,000 the Medical Society would receive at \$1 a day per patient from hospitals would be used for educational purposes, postgraduate medical courses and for the establishment of a relief and old-age fund for sick and needy doctors. Dr. Paul Withington has been named head of a special committee which will interview all hospital boards and the board of supervisors to notify them of the proposed charge for indigent patients.

The vote on the resolution was unanimous, and was prompted "by the changes in the economic situation in which the Territory is assuming a larger responsibility for the welfare of the people, leaving less to the individual's own choice, and also in view of the fact that in this change, so far, the medical profession has been least considered."

#### Sounder Economy

The Medical Society, according to the resolution, hopes to place the profession it represents on a sounder economic basis.

The resolution calls attention to the fact that at the present time in the treatment of the so-called indigent sick, all agencies connected with that treatment, with exception of the doctors, are paid for their services, as follows:

His hospitalization, which includes food, nursing and housing, is all paid for; the grocer is paid, the drug man is paid, the nurse is paid, as well as the government employees involved. The doctor alone is unpaid.

#### Special Privileges

The privilege of doing valuable work for no financial remuneration has been a time-honored custom of the medical fraternity, the resolution states. However, in the past it was recognized that because of this service the doctor was granted certain special privileges, among other things, and particularly in this Territory he was charged a gross income tax of one-half of 1 per cent against a gross income tax of 1½ per cent for commercial business. The last Legislature raised this income tax of the doctors to a full 1½ per cent.

On the basis of figures stated in the foregoing it is figured that the raise in the gross income tax to a full 1½ per cent

would net the Territory \$163,000 per year, and that by imposing a nominal charge of \$1 a day against hospitals doing government business the medical profession would be paid \$35,000 yearly.

The fund into which the doctors plan to turn this money will not be taxable, because it will be dedicated to charitable purposes.—The Honolulu Advertiser, August 19.

\* \* \*

#### Military Home Medical Chief to Retire

*Colonel Mattison to End Thirty-seven Years in Federal Service*

Colonel James A. Mattison, thirty-seven years in the Federal service and for the last sixteen years chief medical officer in charge of the Sawtelle National Soldiers Home, announced today he will retire Saturday.

A reception and tea in his honor will be given by the faculty tomorrow afternoon and he will depart Saturday for a short leave of absence, after which he will retire to his orange ranch in Glendora.

He was transferred to Sawtelle from the old National Military Home at Dayton, Ohio, sixteen years ago. At that time the National Soldiers Home here was a 400-bed unit housed in a frame building.

Today it has 2,400 beds in the largest and best of the eighty-four Veterans Administration hospitals in the United States. From a half-dozen doctors and twenty nurses, the personnel has been enlarged to seventy full-time medical officers, 180 trained nurses, 300 ward attendants, seven dentists and their ten assistants. There are from seven thousand and eight thousand admissions and discharges annually.—Los Angeles Herald and Express, September 7.

\* \* \*

#### Oust General Hospital Head

*Board Votes Firing*

Superintendent Had Institution in Awful Mess, Charge

Everett J. Gray was ousted today as superintendent of the General Hospital by unanimous vote of the Board of Supervisors.

Action was taken on recommendation of Rex Thomson, superintendent of county charities, who, after conducting a general investigation into conditions at the institution, characterized its administration as "an awful mess."

After reading a letter from Thomson containing the recommendation, Supervisor Gordon McDonough moved that Gray be ousted and that his position be eliminated. The motion carried without a dissenting vote and County Counsel John H. O'Connor was instructed to amend the salary ordinance to do away with Gray's office.

#### Urges Medical Man

In advising Gray's removal, Thomson recommended that a trained man with a medical degree, as well as long experience, be employed to direct the administration of the hospital, which he said is rated as one of the biggest institutions of its kind in the world.

"It has been an institution without a head," Thompson charged. "Its administration is an awful mess. There are too many nurses doing clerical work. Doctors and nurses are complaining of the conditions under which they have to work, and patients are being neglected."

McDonough suggested that a nation-wide examination be held "to seek the best man in the country for this job."

The salary should be fixed at Gray's present salary of \$6,600 a year with maintenance, Supervisor William A. Smith advised. He said that the \$7,200 salary given Gray before a recent cut by the Board of Supervisors was too much.

#### Charge Mismanagement

Mismanagement of the hospital, poor treatment of patients and alleged "intolerable" conditions were recently charged by nurses and workers and representatives of the Property Owners Association of California, headed by William A. Pixley.

The charges at that time were referred to by Supervisor Oscar Hauge as "a terrible indictment."

Supervisor John Anson Ford said today he concurred in the suggestion that the best possible man for the job be employed to take charge of the hospital management and said "it is always good economy to employ the best."

Gray has been superintendent of the hospital for two years. Previous to that time he was in charge of the Olive View Sanitarium and before that superintendent of the county poor farm.—Los Angeles Herald and Express, August 29.



### Doctors' Pay Less Than Skilled Labor

An instance wherein a public assistance agency's hourly wage rate allowance is less for physicians than for several classifications of skilled laborers is cited by an editorial in *The Journal of the American Medical Association* for August 26. The editorial says:

"Recent issues of Philadelphia newspapers published the prevailing wage rates adopted by the Philadelphia County Assistance Board for occupations of various types. The highest rate given appears to be that for a bricklayer who is a skilled foreman. To him the sum of \$1.79 an hour is permitted. Next comes an iron and steel worker, who gets \$1.65 an hour, and after that an ordinary bricklayer, who gets \$1.62 an hour. There are still some occupations which are preferable to that of physician, including that of marble setter and polisher at \$1.60 an hour and plasterer at \$1.55 an hour.

"In the next group come the doctors. Among those who are allowed \$1.51 an hour are found the air compressor operator, the dredge operator, the power shovel operator, the pump operator, the roller operator, the architect (registered or certified), the statistician (graduate or certified), the lawyer and the physician. There must be some explanation for this classification but it is not easily apparent.

"The study of such lists provides much interesting information. For example, a tree pruner, who might be considered in the professional class, gets only 59 cents an hour; a sign painter, whose work is in the nature of artistry, \$1.29 an hour; a secretary-stenographer, 70 cents an hour, and a translator \$1.00 an hour. The lowest rate paid to anybody is 50 cents an hour. A machinist's helper gets 59 cents an hour but a marble setter's helper gets \$1.00 an hour and a rip-rapper gets 59 cents an hour. A concrete spreader gets 59 cents an hour and an asphalt spreader gets 65 cents an hour. Evidently it depends on what you are spreading around."—*San Francisco Examiner*, September 10.

\* \* \*

### Vandeleur Defends Health Bill Fight\*

#### Federation Calls Recent Act Makeshift Move

Criticism of the State Federation of Labor and the joint labor legislative committee in not supporting the proposed health insurance bill in the last Legislature was answered yesterday.

The State Federation, in a statement from Secretary Edward D. Vandeleur, declared it has long favored health insurance legislation "clear and unequivocal" in its provisions and beneficial to all classes of labor.

#### Many Excluded

The bill defeated in the Assembly, 48 to 20, contained amending provisions excluding large classes of workers who need this protection most urgently, the report asserted.

These included agricultural labor, domestic service, hospital and institutional employees in business not conducted for profit. It also exempted Federal and State government employees, as well as agencies connected with Government groups.

#### Source of Funds

The report further claimed that if the legislation was enacted it would have been as an amendment to the Unemployment Reserve Act, and any funds for its administration would have had to come from the unemployment reserve fund. It concluded:

"We favor an exclusive health plan, financed out of an exclusive health fund, and providing for assistance from the Federal Government.

"One important reason for this is the steady influx of migratory workers into California. It must be realized what the cost and effect that caring for them would have on any health insurance plan financed solely by the State."

The joint labor legislative committee represented the State Federation, numerous departmental councils of the State, and delegates from the railroad brotherhoods.—*San Francisco Examiner*, August 29.

\* \* \*

### Doctors Protest

Way "down under" in New Zealand they are having trouble.

The socialist government of that country is trying to put in effect a plan for free medical care for all, which is at present stymied because the doctors refuse to cooperate. Though the plan would have meant a \$7,500-a-year income for general practitioners, only twenty-two out of about one thousand doctors signed up.

The doctors deny that they are "on strike," insisting that they are giving medical aid as always. But the government

is furious, and threatens to import doctors wholesale to take the place in the socialized scheme which the native doctors refused to assume. Thus far, it is a dead heat between the government and the doctors.

Thus another laboratory works out a social experiment which this and other countries can study for our own benefit if we will.

The world is full of these laboratory experiments, in Russia, Germany, Italy, Spain, Britain, Australia. Careful study of the results ought to save an observant country much pain when the time comes to make its own experiments.—*San Jose News*, August 22.

\* \* \*

### Shear Wisdom

#### Socialized Medicine

Socialized medicine, as sponsored by the California Medical Association, seems to have arrived.

Newspaper reports give the information that five thousand California doctors have inaugurated a program of health service at modest monthly cost. The experiment will be an interesting one.

Obviously, the program grew out of agitation for government supervision of medical service. The medical profession, itself, now seeks to explore the possibilities of such a service.

It sounds like a wise decision. If the problem can be worked out under private management, it is clearly to the interest of everyone that it be done that way.

To place government in control of the medical profession would be to lay on that profession the dead hand of bureaucracy. The great advances of the medical profession in the past, advances that have closely concerned human welfare, would be ended with the coming of government dictation.

To bring health service to the people at the smallest possible cost is a desirable objective. To reduce medical science to the status of a servant of politicians would be a price that no people could afford to pay.—*Anaheim Bulletin*, August 18.

\* \* \*

### Dental Union Signs Contract

#### Agreement Covers San Francisco, Alameda County

Negotiations of a 1939-40 contract was announced today by the Dental Technicians Local 99 covering some seventy-five workers in San Francisco and Alameda County.

The union said the agreement included pay scales of \$45 for journeymen, \$35 for helpers, \$15 for apprentices, two holidays with pay, a forty-hour week and a union shop hiring clause.—*San Francisco News*, September 6.

\* \* \*

### Army Doctors

#### Examinations Announced

Expansion of the Army has created more than the usual number of vacancies in the Medical Corps, authorities announced yesterday.

Examinations for the purpose of qualifying candidates for appointment as first lieutenant in the Medical Corps of the regular Army will be held December 4 to 8, inclusive. Full information and application blanks may be had by applying to the Adjutant-General, War Department, Washington, D. C.

The examinations are open to male American citizens who are graduates of acceptable medical schools, and have completed one year's internship in an approved hospital. The men cannot be over 32 years old at the time of being commissioned.—*San Francisco Chronicle*, September 24.

\* \* \*

### Doctor Reichert Elected

Honolulu, Sept. 21 (UP).—Dr. Frederick L. Reichert, San Francisco resident and associate professor of surgery at Stanford University, was elected today as the next president of the Pan-Pacific Surgical Association.—*San Francisco Examiner*, September 22.

*Glasses Cause No Lasting Eye Injury.*—Glasses can cause no permanent injuries to the eyes, Conrad Berens, M. D., New York, declares in *Hygeia*, the health magazine.

Some persons who have become accustomed to better vision through wearing glasses forget how poorly they once saw and believe the glasses are responsible for the defects which still remain, he points out.

\* By Al T. Baum, labor editor, *The Examiner*.

## LETTERS

**Subject: Legal right of a chiropractor to practice obstetrics.\***

DEPARTMENT OF PROFESSIONAL AND VOCATIONAL  
STANDARDS

BOARD OF MEDICAL EXAMINERS  
STATE OF CALIFORNIA

9-20-39

420 State Office Building  
Sacramento, California  
September 23, 1939

California and Western Medicine  
George H. Kress, M. D., Editor

Addressed

Attached hereto please find copy of California Attorney-General's Opinion No. NS1962, dated September 14, 1939, rendered to Honorable J. M. McPherson, District Attorney of Butte County, which closes with the following sentence: "Pursuant to such decision, it would appear that a chiropractor may not engage in the practice of obstetrics."

We thought the enclosure might be of interest to readers of CALIFORNIA AND WESTERN MEDICINE.

Very truly yours,

C. B. PINKHAM, M. D.,  
Secretary-Treasurer.

✓ ✓ ✓

(COPY)

San Francisco, September 14, 1939.

Hon. J. M. McPherson  
District Attorney of Butte County  
I. O. O. F. Building  
Chico, California

Dear Sir:

In your communication of September 2, you indicate that a complaint has been requested against a chiropractor in your county on the ground that the latter is engaged in the practice of medicine without possessing a license so to do.

Your statement indicates that such chiropractor is charged with having openly advertised that he is an obstetrician, as well as having engaged in the performance of obstetrics. From your statement it appears that the chiropractor claims to have taken a course in obstetrics in his chiropractic training and that, pursuant to Section 7 of the Chiropractic Act, he is legally entitled to engage in the delivery of children. You ask the views of this office with respect to the correctness of his contention.

In requesting such views, you indicate that the chiropractor under discussion claims he is entitled to "treat diseases, injuries, deformities, or other physical or mental conditions without the use of drugs or what are known as medical preparations, and without in any manner severing or penetrating any of the tissues of human beings, except the severing of the umbilical cord."

In reply, please be advised that before the enactment of the Chiropractic Initiative Act in 1922, the possessor of a drugless practitioner's certificate was authorized to do all of those things immediately above enumerated. This would, of course, include obstetrics. The Chiropractic Initiative Act was adopted in 1922. Section 7 thereof then read and now reads as follows:

One form of certificate shall be issued by the Board of Chiropractic Examiners, which said certificate shall be designated "license to practice chiropractic," which license shall authorize the holder thereof to practice chiropractic in the State of California as taught in chiropractic schools or colleges; and, also, to use all necessary mechanical, and hygienic and sanitary measures incident to the care of the body, but shall not authorize the practice of medicine, sur-

\* For editorial comment in this issue, see page 219. For text of proposed chiropractic initiative, see September issue, on page 211.

gery, osteopathy, dentistry or optometry, nor the use of any drug or medicine now or hereafter included in materia medica.

The language "to practice chiropractic" has been construed to mean that the art or science must first be chiropractic before a licensee may practice the same, and must not constitute the practice of medicine, surgery, osteopathy, dentistry or optometry, or include the use of any drug or medicine in 1922 or thereafter included in materia medica.

A recent case, entitled *People of the State of California vs. Paul C. Fowler*, Appellate Department, Superior Court, County of Los Angeles, State of California, 3 Cal. App. Dec. Supp. 41, said in part as follows:

Examination of the argument in favor of the Chiropractic Act, made by those advocating it and officially circulated to the voters at the election in 1922, at which time the act was submitted and adopted as an initiative measure, shows that the principal matter complained of was unfair administration of the Medical Practice Act against chiropractors by the board in charge. No objection was made to the terms of that act itself, or the scope of the practice permitted by it to drugless practitioners, and the voters were assured by this argument that the proposed chiropractic act "prohibits the use of drugs, surgery or the practice of obstetrics by chiropractors." This argument, while not conclusive, may be considered as an aid in the interpretation of the statute. *Beneficial Loan Soc. Ltd. vs. Haight* (1932), 215 Cal. 506, 515.

That case cites many authorities to the effect that chiropractic is

"a system of healing that treats disease by manipulation of the spinal column."

Pursuant to such decision, it would appear that a chiropractor may not engage in the practice of obstetrics.†

Very truly yours,

EARL WARREN, Attorney-General.  
By Lionel Browne, Deputy.

**Subject: Articles on health insurance in Australia.\*†**

(COPY)

San Francisco, August 22, 1939.

To the Editor:—To correct a statement in CALIFORNIA AND WESTERN MEDICINE, that Australia had abandoned health insurance, will you please read this enclosed letter [of June 6] and see if you do not think, in all fairness, that it should be published in the JOURNAL. I have written the Attorney-General and have several government publications which are on file in the Lane Library, bearing out this statement.

909 Hyde Street.

Sincerely yours,

PHILIP KING BROWN.

✓ ✓ ✓

(COPY)

AUSTRALIAN NATIONAL TRAVEL ASSOCIATION  
A NONPROFIT COMMUNITY ORGANIZATION

U. S. A. Office: 510 West Sixth Street  
Los Angeles, California.

June 6, 1939

Dr. Philip King Brown  
Medical Building  
909 Hyde Street  
San Francisco, California

Dear Doctor Brown:

The press report that Australia has abandoned its health insurance plan is decidedly misleading without a full expla-

† Editor's Note.—Italics our own.

\* Refers to items in a letter from the Australian correspondent in the *Journal of the American Medical Association*, July 8, 1939, and reprinted on page 119 of the August, 1939 issue of CALIFORNIA AND WESTERN MEDICINE.

† For additional information concerning this topic, see editorial comment in the *Journal of the American Medical Association*, September 23, 1939, on page 1231.



nation of the facts. National health insurance was a part of the platform of the Commonwealth (nonlabor) Government led by the late Prime Minister, Joseph Lyons. A bill was brought down, debated, and all the necessary organization planned. Then came grave threats of war, and the necessity arose of spending up to the limit of Australia's resources on war preparedness. Under the circumstances, the Government decided that national insurance must be delayed, but certainly not abandoned.

Because of his opposition to delay in establishing national insurance, the Hon. R. G. Menzies, Attorney-General, resigned from the Lyons Government. On the death of Mr. Lyons, Mr. Menzies was elected leader of his party and became Prime Minister.

As the new Prime Minister has staked his political future on establishing national health insurance, it is safe to predict that if he retains his office he will lose little time in bringing the system into operation.

Herewith I am sending you copy of a speech in the Federal Senate by the leader of the Lyons Government in that Chamber (Senator McLachlan), and a résumé of a speech by the Commonwealth Treasurer in the House of Representatives.

Should you need further material, I suggest you write to the Hon. R. G. Menzies, Prime Minister, Canberra, Australia.

Sincerely yours,

(Signed): A. H. O'CONNOR,  
Manager.

✓ ✓ ✓

#### COMMENT

(Note: Doctor Brown's letter and enclosure were sent to Dr. Morris Fishbein, Editor of *The Journal of the American Medical Association*. Doctor Fishbein's reply follows.)

(COPY)

THE JOURNAL OF THE  
AMERICAN MEDICAL ASSOCIATION

Chicago, August 29, 1939.

Dr. George H. Kress  
San Francisco, California  
My dear George:

All of the evidence which we can collect from various sources indicates that, while the Health Insurance Act was passed in Australia, they have never been able to enforce the Act. If you will look at the *Medical Journal of Australia* for March 11, 1939, you will find a letter from a physician in which he says, "Happily, it appears that national insurance is done."

The battle for and against health insurance in Australia well-nigh disrupted the profession, and it is likely that there will be changes in their constitution in relationship to the handling of such matters.

In the meantime, we have plenty of evidence that everything that our correspondent has written on this subject is a fact. It is quite possible that the simple statement that Australia has abandoned its health insurance plan is misleading unless there is also a full explanation, but the fact remains that that statement is, nevertheless, true. It is also quite possible that some time in the future attempts will be made to make the law effective, and it is possible also that someone may in the future attempt to pass another law. It is still the truth that in Australia for the present health insurance is finished.

Sincerely yours,

(Signed): MORRIS FISHBEIN.

(COPY)

AMERICAN MEDICAL ASSOCIATION

Chicago, September 5, 1939.

Dr. George H. Kress  
Secretary, California Medical Association  
San Francisco, California

Dear Doctor Kress:

I have before me a memorandum prepared by one of the associate editors of *The Journal of the American Medical Association*. The following paragraph is taken from that memorandum:

"In regard to the correspondence from Doctor Kress of California: The general tone of the letters of the Australian correspondent has indicated a stubborn and persistent opposition to health insurance in that country. This opposition to health insurance has come, the correspondent says, not only from the medical profession, but also from a strong federal labor opposition; from some employers who are apprehensive about the extra cost they will have to carry as contributors to the scheme on behalf of their employees; from a body of rural opinion expressing the grievances of small farmers who will have to pay contributions for persons they employ but who themselves will not be eligible to become insured, and finally, from the existing friendly societies. This is indicated in his letter in *The Journal* for January 14, 1939, page 164."

535 North Dearborn Street.

Very sincerely yours,  
OLIN WEST.

#### Subject: Nursing Practice Act of California (1939).\*

On September 19, 1939, the Bureau of Registration of Nurses, which has been under the supervision of the Department of Public Health of the State of California, was transferred to the California Department of Professional and Vocational Standards. The following letter should be of interest:

(COPY)

STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC HEALTH

Sacramento, August 31, 1939.

#### NOTICE OF NURSING PRACTICE ACT OF CALIFORNIA

A copy of the Nursing Practice Act of California, which was signed by the Governor on July 17 and becomes effective on September 19, is herewith enclosed.

The personnel of the Bureau of Registration of Nurses is being transferred to the Department of Professional and Vocational Standards. The titles of all positions will remain the same except that of Chief of the Bureau of Registration of Nurses, which will become Executive Secretary of the Board of Examiners.

The three offices will be maintained. Their addresses will be:

Board of Nurse Examiners, Department of Professional and Vocational Standards—  
Sacramento (main office).

515 Van Ness Avenue, San Francisco.

906 State Building, Los Angeles.

BUREAU OF REGISTRATION OF NURSES.

#### Subject: Broken intra-uterine ring—Autopsy.

DEPARTMENT OF PUBLIC HEALTH  
SAN LUIS OBISPO COUNTY

September 13, 1939.

To the Editor:—Last week I performed an autopsy on a woman, thirty-three years old, who died from an acute

\* For copy of the law, write to California State Printing Office, George H. Moore, State Printer, Sacramento.

The "Trained Attendant Act" (enacted May 5, 1919; Statutes of 1919, page 242) providing for schools for "trained attendants," remains under the jurisdiction of the California State Board of Public Health. For copy of the Act, address California State Board of Public Health, State Building, San Francisco.

intestinal obstruction. At the postmortem examination it was found that a broken intra-uterine ring of the Gräfenberg type (*Journal of the American Medical Association*, April 8, 1939) had caused the obstruction.

One end of the broken ring was embedded in the peritoneal surface of the uterus, the other entangled in the small bowel. Since this ring had been inserted only two months prior, it is possible that the uterus was perforated at the time of the insertion. Two months seems a rather short time for the ring to burrow through the uterus. An early pregnancy was present. A previous pregnancy was delivered in March, 1939.

Since these rings are still being used, it appears that they have not been sufficiently condemned.

Very truly yours,

E. M. BINGHAM, M. D.,  
Health Officer.

**Subject: Certificate Forms (Premarital Law\*).**

Certificate Form Required for Each Applicant for a Marriage License in California

To Be Valid, Test Must Be Made Not More Than Thirty Days Before the Day the Marriage License Is Issued

**RECORD OF STANDARD LABORATORY BLOOD TEST**

(To be filled out and sent to physician with report of result of test)

THIS IS TO CERTIFY, That a ..... test  
Name of test or tests

for syphilis was performed on ..... 19....., on a blood specimen submitted in the name of .....

Full name of applicant

Street

City

County—State if other than California

Name of laboratory

[Signed] .....

Person authorized to report for laboratory

**CERTIFICATE OF PHYSICIAN**

(To remain attached to laboratory record)

THIS IS TO CERTIFY, That I have examined the person named in the above laboratory record and, in my opinion, this person is not infected with syphilis or is not in a stage of this disease which may become communicable to the marital partner. I also certify that this person submitted to a standard laboratory blood test for syphilis, a report of which I have received and examined.

SIGNATURE OF PHYSICIAN

Street

City

County—State if other than California

Date of examination of applicant

Physicians not licensed in California, indicate in which State licensed .....

THIS IS TO CERTIFY, That I am the applicant referred to in the above certificates.

Filed: Date

[Applicant's Signature] .....

County Clerk

**Subject: Treatment of Baldness: Medical Practice Act.**

DEPARTMENT OF PROFESSIONAL AND VOCATIONAL STANDARDS

BOARD OF MEDICAL EXAMINERS  
STATE OF CALIFORNIA

420 State Office Building  
Sacramento, California  
September 26, 1939

To the Editor:—Enclosed herewith please find copy of Opinion No. NS1860 rendered August 7, 1939, by the office of the Attorney-General and relating to treatment of baldness, which we thought might be of interest to readers of CALIFORNIA AND WESTERN MEDICINE.

Very truly yours,

C. B. PINKHAM, M. D.,  
Secretary-Treasurer.

(COPY)

STATE OF CALIFORNIA  
LEGAL DEPARTMENT

San Francisco, August 7, 1939.

Charles B. Pinkham, M. D.  
Secretary-Treasurer  
Board of Medical Examiners  
515 Van Ness Avenue  
San Francisco, California  
Dear Sir:

Under date of July 7, 1939, your assistant special agent, Joseph W. Williams, addressed to this office a communication stating that an individual—whom we assume to be a layman—advertises at his place of business as follows:

"Ex-er-vac Treatment, as used and prescribed by Dr. Andre A. Cueto, 205."

This individual, Mr. Williams states, occupies a room in an office building, although his name does not appear on the building directory.

Under such circumstances it is asked whether this individual is violating any provisions of the Business and Professions Code dealing with the practice of medicine.

In reply thereto, your attention is called to Section 2141 of the Business and Professions Code. Such section declares it to be a misdemeanor for any person to practice or attempt to practice or to advertise or to hold himself out as practicing any system or mode of treating the sick or afflicted in this State, or to diagnose, treat or prescribe for any ailment, blemish, deformity, disease, disfigurement, disorder or injury or other physical condition of any person, unless such person have at the time of so doing a valid, unrevoked certificate, as provided for in Chapter 5 of the Business and Professions Code.

The sign indicates that it is a treatment used and prescribed by a doctor. From this it would appear that it is such a character of treatment as is used and prescribed by a physician, *i. e.*, a medical type of treatment.

In the case of *State vs. Miller*, 229 N. W. 569, the Supreme Court of North Dakota said in effect: When one diagnoses disease and prescribes and applies any therapeutic agent as a remedy, he is, in a broad sense, practicing medicine. To "prescribe" means more than suggestion or opinion. It means to direct the use of a medicine. The opinion of the court indicated that one who held himself out as being capable to diagnose ailments, discover the ills of persons and prescribe the proper remedy, thereby directing the use of certain medicines and furnishing of them for that person, either directly or indirectly, is practicing medicine.

You do not indicate what constitutes the so-called Ex-er-vac treatment, and in lieu of information in this

\* For additional information, see CALIFORNIA AND WESTERN MEDICINE, September, 1939, on pages 145, 200, and 208.



respect this office cannot advise you whether the treatment prescribed is in fact a medical one.

Aside from this fact, however, there is little doubt but that the individual under discussion is advertising that he is, and is, in fact, holding himself out as practicing a system or mode of treating the sick and afflicted. Certainly the law cannot countenance an unlicensed person stating that he is supplying a treatment as used and prescribed by a person who is apparently a physician and then denying that he is either treating or prescribing.

Mr. Williams advises that the person under discussion has informed him it was not necessary to be licensed in order to treat hair and scalp conditions. If such individual uses drugs or what are known as medicinal preparations in or upon a human being, or penetrates the tissues of human beings, or treats diseases, injuries, deformities or other physical or mental conditions, such individual is in error in his statement. (Business and Professions Code, Section 2137.)

The Miller case, above referred to, indicates that the Medical Practice Act was enacted for the protection of the public health against the ignorant, charlatan, and imposter. It is confined to the practice of medicine as science, and is aimed at those who profess to be what they are not.

In conclusion, we would state that if the treatment consists of the administration of medicinal preparations for the purpose of correcting a physical deformity, any person using the same for such purpose would violate the provisions of Section 2137 of the Business and Professions Code, as well as Section 2141 thereof. If the treatment does not consist of the use of medicinal preparations in or about human beings or the penetration of the tissues of human beings, but consists of the treatment of diseases, injuries, deformities, or other physical conditions without the use of drugs, or what are known as medical preparations, a person not licensed as a drugless practitioner or as a physician and surgeon would violate the provisions of Section 2138 of said Code.

EARL WARREN, *Attorney-General*.

(Signed) By Lionel Browne, *Deputy*.

## MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.

San Francisco

### LEGAL RESPONSIBILITY OF PHYSICIANS TO PATIENTS AND OTHERS IN OFFICE FOR CONDITION OF OFFICE AND ALL EQUIPMENT: EXTENT OF COVERAGE UNDER MALPRACTICE AND PUBLIC LIABILITY POLICIES

In the recent case of *Johnston vs. Black Company*, 97 Cal. App. Dec. 810, the California District Court of Appeal, First District, upheld a verdict in favor of a defendant radiologist rendered in a suit brought to recover damages for injuries sustained as the result of a fall from a fluoroscopic table. This decision again affirms the rule of law that the mere occurrence of an injury while in the office of a physician or surgeon is not of itself a sufficient basis for the recovery of damages. In this instance, plaintiff, a woman of middle age, was asked to stand upon the foot rest of the table by the radiologist's technician, who customarily placed patients on the table in readiness for examination by the physician. The technician then commenced to lower the table by starting an electric motor which controlled its elevation. Shortly after the motor started, the table suddenly began to jerk. Before anything could be done the table plunged abruptly to a subhorizontal position

and catapulted the plaintiff to the floor. The plaintiff received a pressure fracture of the spine and was confined to bed for a long period of time. Her claim was, in effect, that a physician should be an insurer of the safety of persons visiting his office and that accordingly the mere occurrence of the injury while in the physician's office should require a verdict in her favor.

The defense of the doctor was that the accident raised only an inference of negligence on his part, thereby placing upon him the burden of showing that the accident arose through no fault of his. He then proved that the accident was caused not by any lack of proper maintenance of the equipment or any negligence in its operation, but by the crystallization and subsequent sheering off of a steel taper pin embedded in the drive shaft of the table and constituting a permanent part of the mechanical apparatus. Experts testified that the pin was made and installed in such a manner that it ought not be removed during the life of the table.

Thus there was present a situation in which neither plaintiff nor defendant could be accused of lack of care but one in which a patient had suffered serious injuries. The jury rendered a verdict for defendant, and this verdict was upheld by both the Appellate and Supreme Courts. The case is extremely interesting to the practicing physician who must daily rely on his equipment and can do nothing toward the prevention of mishaps other than the exercise of care in its maintenance. It illustrates the absolute legal necessity for constant care in the purchase and maintenance of all office equipment. If the radiologist had been unable to prove constant care and maintenance of the fluoroscopic table, he would probably have had a large verdict awarded against him.

Another interesting point connected with the case, although not a part of the court proceedings, was the status of the doctor's insurance protection. Fortunately, the physician concerned carried both malpractice and public liability policies, under one or the other of which he was bound to be protected. However, the positions taken by the respective companies concerning their respective liabilities was interesting. The malpractice insurer contended that as the physician was not even in the room at the moment the accident happened, and as everything leading up to the accident was mere preparation for examination, it had no liability under its malpractice coverage. On the other hand, the public liability insurer contended that the malpractice insurer should be liable because the accident occurred while the patient was in the hands of the physician's assistant and during the occurrence of matters preliminary to treatment. Had there been a large verdict and judgment against the defendant physician, he would, no doubt, have been subjected to some embarrassment arising from the understandable unwillingness of either company to accept responsibility without a judicial decision. The question of liability was an extremely close one. It could well have been decided either way, thus proving conclusively that it is prudent to carry both malpractice and public liability insurance. If the doctor had carried only malpractice insurance, it might have been held that public liability was involved, in which event the doctor would have had no insurance protection.

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*Recovery from Tuberculosis.*—Much has been said and written of late years as to the relative value of the early diagnosis of pulmonary tuberculosis, but it is no less important to be sure by reliable tests that the disease is arrested. Temperature, pulse rate, blood sedimentation, and x-rays should all be utilized in coming to a decision, and after there is no further progression, time should be given for the healing of the existing pathologic process. Only then can the patient be assured that recovery has taken place and that recurrence is unlikely under the ordinary stresses of life.—J. W. Green, *Med. Bull. Vet. Adm.*, January, 1936.

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

## SPECIAL ARTICLES

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1. *Board of Medical Examiners, State of California.*
2. *Incomes of Physicians.*
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6. *Registered Dispensing Opticians: A New California Law.*
7. *Nursing Practice Act—1939.*
8. *Trained Attendant Act.*

BOARD OF MEDICAL EXAMINERS  
STATE OF CALIFORNIA

## Report on July, 1939, Examinations\*

Dr. Charles B. Pinkham, Secretary-Treasurer of the Board of Medical Examiners of the State of California, reports results of the written examination held in San Francisco, July 11 to 13, inclusive. The examination for physicians and surgeons covered nine subjects and included ninety questions. Two hundred and fifteen physicians and surgeons wrote the examination. Included in the physician and surgeon applicants were several graduates of foreign medical schools.

The highest mark for physicians and surgeons (90 3/9 per cent) was made by Dr. Boris Eugene Levine, Los Angeles County General Hospital, Los Angeles, a graduate of the Louisiana State University School of Medicine, May 30, 1938.

The following is a list of successful applicants:

(COPY)

Department of Professional and Vocational Standards  
MINUTES OF THE MEETING OF THE REVIEW COMMITTEE  
OF THE

## BOARD OF MEDICAL EXAMINERS

The Review Committee of the Board of Medical Examiners met in the office of the Board, Room 420, State Office Building, Sacramento, at 7:30 p. m., Tuesday, September 5, 1939.

The results of the examination held in San Francisco, July 11 to 13, 1939, as reported by the various examiners and tabulated in the examination record book, were checked, identification envelopes opened, and names attached to corresponding examination numbers with the following results:

## PASSED

## Physicians and Surgeons

Name	School
Afflerbaugh, Jack Kenneth, San Francisco.....	Stanford Univ.
Aldrich, Albert Turner, San Jose.....	Univ. of Kansas
Allen, Richard Gordon, Oakland.....	Univ. of Penn.
Altman, Allen Ashton, San Francisco.....	Stanford Univ.
Anderson, Carl Edgar, San Francisco.....	Univ. of California
Ashton, Paul Louis, San Francisco.....	Univ. of California
Auxier, Gwendolen Gertrude, Los Angeles.....	Northwestern Univ.
Barber, Dale Emerson, San Francisco.....	Univ. of California
Bassett, David Lee, San Francisco.....	Stanford Univ.
Beadner, Sol Alfred, San Francisco.....	Univ. of Oregon
Beard, Crowell, Oakland.....	Univ. of California
Beem, Richard Thomas, Los Angeles.....	Coll. of Med. Evangelists
Belz, John Francis, San Francisco.....	Stanford Univ.

\* Department of Professional and Vocational Standards, Board of Medical Examiners, State of California. San Francisco, California, September 18, 1939;

To the Editor: Conforming with your request we enclose herewith press release dated September 12, 1939, giving names of physicians who passed the examination held in San Francisco in July. Very truly yours, C. B. Pinkham, M. D., Secretary Treasurer.

Name	School
Bidwell, Robert Reddington, Santa Monica.....	Univ. of So. California
Bingaman, Dixie McLean, Salinas.....	Univ. of So. California
Blasdel, Edward Knute, San Francisco.....	Stanford Univ.
Bossert, Robert Howell, Pasadena.....	Coll. of Med. Evangelists
Boudett, Daniel William, San Francisco.....	Univ. of California
Bowles, Frank Herbert, Jr., Oakland.....	Stanford Univ.
Brainerd, Henry Dean, San Francisco.....	Univ. of California
Brock, William, San Francisco.....	Univ. of California
Brodersen, Harold Nord, Los Angeles.....	Coll. of Med. Evangelists
Brown, Ellen, San Francisco.....	Univ. of California
Brown, John Sewall, San Francisco.....	Stanford Univ.
Buehler, Lyle Homer, Alameda.....	Stanford Univ.
Buell, Arthur Horace, San Francisco.....	Univ. of California
Burkhart, Roger John (M. B.), San Jose.....	Univ. of Minnesota
Burrows, Ernest George, Inglewood.....	Coll. of Med. Evangelists
Calcagno, Joseph S., Sacramento.....	Creighton Univ., Nebr.
Carlson, Carl Oscar, San Jose.....	Stanford Univ.
Cawley, John Joseph, Jr., Oakland.....	Univ. of Oklahoma
Chapman, Edwin Stow, San Fernando.....	Univ. of So. California
Chernow, Marvin Lee, Los Angeles.....	Univ. of So. California
Ching, Ernest Fook, Fresno.....	Coll. of Med. Evangelists
Clark, John Vincert, San Francisco.....	Univ. of Oklahoma
Clinite, William Donaldson, Burlingame.....	Stanford Univ.
Colm, Cyrenus Leland, San Francisco.....	McGill Univ., Canada
Combs, Robert Clarence, San Francisco.....	Univ. of California
Conklin, James Edward, Jr., Sacramento.....	Univ. of So. California
Cowden, Ambrose Alfred, San Francisco.....	Univ. of California
Cowper, Herbert Hazlett, Los Angeles.....	Univ. of So. California
Crane, Edward Harrison, Jr., Bakersfield.....	Univ. of So. California
Cull, Virginia Louise, San Francisco.....	Univ. of California
Culleton, James Edward, Sacramento.....	Marquette Univ., Wis.
Curtis, Gilbert DeWitt, Los Angeles.....	Coll. of Med. Evangelists
Dailey, Morris Elmer, Berkeley.....	Stanford Univ.
Danno, Dorothy Palubicki, San Francisco.....	Univ. of California
Davis, Donald R., San Diego.....	Univ. of So. California
Davis, Edward Walter, San Francisco.....	Univ. of California
DeWeese, Roger Erle, Jr., San Francisco.....	Univ. of California
Diamond, John, San Francisco.....	Univ. of California
Dickson, Owen Charles, Oakland.....	Univ. of California
Dodds, Donald Clifford, Oakland.....	Washington Univ., Mo.
Dong, Emma Oy, San Francisco.....	Univ. of California
Doval, John Henry, Sacramento.....	Univ. of California
Drake, James Richard, Los Angeles.....	Coll. of Med. Evangelists
Due, Floyd Oliver, San Francisco.....	Univ. of California
Edmond, Julian, Jr., San Francisco.....	Stanford Univ.
Ehrlich, Alfred Stuart (M. B.), Los Angeles.....	Univ. of Illinois
Elmore, Ernest Ferrell (M. B.), San Jose.....	Northwestern Univ.
Emerson, Doris, San Francisco.....	Univ. of California
Engleman, Ephraim Philip, San Francisco.....	Coll. of P. & S., N. Y.
Evans, William Dustin, Loma Linda.....	Coll. of Med. Evangelists
Feiler, Clifford Lloyd, Oakland.....	Univ. of California
Fey, Louis David, Oakland.....	Northwestern Univ.
Firpo, John James, San Francisco.....	Creighton Univ., Nebr.
Fisher, Willard Charles, Los Angeles.....	Coll. of Med. Evangelists
Fiske, Leigh Gordon, San Francisco.....	Johns Hopkins, Md.
Flinn, Edward Forde, San Francisco.....	Coll. of P. & S., N. Y.
Fong, Edward Everett, San Francisco.....	Univ. of California
Forney, Robert Lasley, San Francisco.....	Univ. of Colorado
Foster, Thomas Newton, San Francisco.....	Stanford Univ.
Foster, Vernon Walter, Glendale.....	Coll. of Med. Evangelists
Fruin, Richard Lawrence (M. B.), Mare Island.....	Univ. of Illinois
Fujita, Eugenia Yuriko, San Francisco.....	Univ. of California
Furze, William Everett, Fresno.....	Creighton Univ., Nebr.



Name	School	Name	School
Gardner, Don G., San Francisco.....	Univ. of California	Mudry, Joseph, Los Angeles.....	Coll. of Med. Evangelists
Gardner, Everett Wilbur,		Neal, William Sanders, Visalia.....	Univ. of California
San Mateo.....	Jefferson Med. Coll., Penn.	Offield, Leonard Denker, San Mateo.....	Stanford Univ.
Garol, Hugh William,		Owens, Harold, Los Angeles.....	Univ. of So. California
San Francisco.....	McGill Univ., Canada	Page, Griffith Davidson,	
Geiger, James Metz, San Francisco.....	Harvard Univ.	Los Angeles.....	Univ. of So. California
George, Lewis Covert,		Pinger, Robert Roland, San Francisco.....	Univ. of California
Loma Linda.....	Coll. of Med. Evangelists	Pinkham, Roland Davis, San Francisco.....	Stanford Univ.
Ghiglieri, Louis Lloyd, Stockton.....	Stanford Univ.	Pobirs, Frederick Walter,	
Giddings, Ralph Ray,		Providence, R. I.....	Jefferson Med. Coll., Penn.
Glendale.....	Coll. of Med. Evangelists	Powers-Heald, Frederick, Oakland.....	Stanford Univ.
Giovanazzi, Joseph Eugene,		Pratt, Harold Ernest,	
San Diego.....	Univ. of So. California	Glendale.....	Coll. of Med. Evangelists
Glass, Ralph Melville,		Pressburger, Erich,	
Walnut Creek.....	Coll. of Med. Evangelists	San Francisco.....	Univ. of Vienna, Austria
Godwin, Edmund Dean, Long Beach.....	Univ. of California	Quinn, Robert William,	
Gordon, Jack David, San Francisco.....	State Univ. of Iowa	San Francisco.....	McGill Univ., Canada
Gradow, Alexander,		Raitt, Albert Edward, Bakersfield.....	Univ. of Nebraska
San Francisco.....	Univ. Moscow, U. S. S. R.	Rector, Elijah William,	
Graham, Harold Leroy,		San Francisco.....	McGill Univ., Canada
Los Angeles.....	Coll. of Med. Evangelists	Reiner, Donald Eugene, Berkeley.....	Univ. of California
Grant, William Ronald,		Reiner, Ralph Everett,	
Los Angeles.....	Coll. of Med. Evangelists	Fort McDowell, Angel Island.....	Univ. of California
Gunn, Grace Elizabeth, San Francisco.....	Univ. of California	Reinhardt, William Oscar, Santa Ana.....	Univ. of California
Guthrie, Myron S., Los Angeles.....	Coll. of Med. Evangelists	Richards, Victor, San Francisco.....	Stanford Univ.
Harrington, Donald Charles,		Robbins, Wilfred Theodore, Davis.....	Univ. of California
San Francisco.....	Univ. of California	Roberts, Thomas Haynes,	
Hatch, Francis Nelson, San Francisco.....	Stanford Univ.	San Francisco.....	Washington Univ., Mo.
Hauser, Arnold,		Rose, William David, San Francisco.....	State Univ. of Iowa
San Francisco.....	Albert Ludwig's Univ., Germany	Rosenberg, Eric Ernest, San Francisco.....	Univ. of California
Hedge, Arden Russell, Madera.....	McGill Univ., Canada	Rosenberger, Homer Gladstone, Jr.,	
Heston, Laurence Lemuel, Santa Rosa.....	Univ. of California	Whittier.....	Stanford Univ.
Hinman, Harry Thornton, Jr., Ogden, Utah.....	Stanford Univ.	Rosser, Bernard Howard,	
Hodgson, Henry Marvin, San Francisco.....	Stanford Univ.	Los Angeles.....	Univ. of So. California
Hopkins, Thorne, San Jose.....	Univ. of So. California	Rudee, William Jen, San Mateo.....	Stanford Univ.
Hopper, James, Jr., San Francisco.....	Univ. of California	Ruiz, Joseph Francis, San Jose.....	Creighton Univ., Nebr.
Huizenga, Ann Harriet,		Russell, Carroll Arnold,	
Shanghai, China.....	Univ. of Chicago, Ill.	San Francisco.....	McGill Univ., Canada
Ichiloka, Tsutayo Nakao,		Salvater, Max Lawrence,	
Los Angeles.....	Univ. of So. California	Sacramento.....	Marquette Univ., Wis.
Impey, Charles Chester, San Francisco.....	Univ. of Nebraska	Saunders, John Bertrand (M. B.),	
Jobbins, Charles George (M. B.),		San Francisco.....	Univ. of Edinburgh, Scotland
Santa Barbara.....	Univ. of Cambridge, England	Savage, James Roberts, San Francisco.....	Stanford Univ.
Johnson, Stanley George,		Schilt, Clarence Humbert,	
San Francisco.....	Univ. of California	Los Angeles.....	Coll. of Med. Evangelists
Kaiser, William Frederick, Jr., Oakland.....	Univ. of Oregon	Seeley, John R., Fresno.....	Univ. of Oregon
Kallan, Irwin Arthur, San Francisco.....	Univ. of Illinois	Sergis, Mooshy, Keyes.....	Univ. of California
Kamins, Maurice Lloyd,		Shaffer, Robert Nesbit, San Francisco.....	Stanford Univ.
Los Angeles.....	Univ. of So. California	Shank, Lawton Ely, San Diego.....	Indiana Univ.
Kingsbery, Lloyd Batre,		Sherertz, Richard Charles, San Francisco.....	Stanford Univ.
Los Angeles.....	Univ. of So. California	Sherman, Allen Hyman, San Francisco.....	Univ. of California
Klingbeil, Louis John,		Sherman, George Fairchild,	
Los Angeles.....	Coll. of Med. Evangelists	San Francisco.....	Univ. of California
Koeniger, Emily Louise,		Shulte, William Kenneth,	
San Francisco.....	Albany Med. Coll., N. Y.	Oakland.....	Univ. of Louisville, Ky.
Kondo, Benjamin Osamu,		Shuman, John Williams, Jr.,	
San Francisco.....	Univ. of California	Los Angeles.....	Washington Univ., Mo.
Krupp, Marcus Abraham, San Francisco.....	Stanford Univ.	Siemens, John Cornelius,	
Larrabee, James Frank, San Jose.....	State Univ. of Iowa	San Francisco.....	Univ. of California
LaTourette, Donald Paul,		Silverstein, Jerome Lloyd, San Francisco.....	Stanford Univ.
Los Angeles.....	Coll. of Med. Evangelists	Simon, Stanley John, Los Angeles.....	Stanford Univ.
Lawrence, Herbert, San Francisco.....	Stanford Univ.	Smith, Joseph George, San Francisco.....	Univ. of California
Lawson, Wallace, San Francisco.....	Univ. of California	Smith, William Weber, Los Angeles.....	Stanford Univ.
Levine, Boris Eugene (M. B.),		Stanton, Frank Everett, Jr.,	
Los Angeles.....	Louisiana State Univ.	Long Beach.....	Univ. of So. California
Lindheimer, Siegfried,		Stephens, Stuart Barclay, Alameda.....	Stanford Univ.
Pasadena.....	Univ. of Frankfurt on Main, Germany	Stewart, Arthur Oren,	
Loy, Monroe Franklin,		North Hollywood.....	Coll. of Med. Evangelists
Los Angeles.....	Coll. of Med. Evangelists	Stocker, Howard Oscar,	
Lubin, Albert Joseph, Sacramento.....	Stanford Univ.	Frankfort, Indiana.....	Coll. of Med. Evangelists
Luke, Ian Watson, San Francisco.....	Stanford Univ.	Talbot, John Coleman, San Francisco.....	Univ. of California
MacDonald, James Lindell,		Tat, Russell Joseph, San Francisco.....	Univ. of Oregon
Oakland.....	Univ. of So. California	Tavares, Clement Adams,	
Magee, Thomas Lea, II, San Francisco.....	Stanford Univ.	Willits.....	Coll. of Med. Evangelists
Makart, Carl Daniel, Chicago.....	Creighton Univ., Nebr.	Terwilliger, Calvin King, Salinas.....	Stanford Univ.
Makower, Melvin Lee, San Francisco.....	Univ. of California	Thompson, George Newton, Jr.,	
Mankin, Henry George, San Francisco.....	Univ. of California	Washington, D. C.....	Univ. of So. California
Mark, Bernard John, Los Angeles.....	Univ. of So. California	Traub, Leo Milton, San Francisco.....	Stanford Univ.
Marsh, Earle Milliard, San Francisco.....	Univ. of California	Vaught, John Lester, Firebaugh.....	Creighton Univ., Nebr.
Maytum, Harry Rodell, Merced.....	Univ. of Wisconsin	Wachtel, Michael,	
McFarland, Jasper Wayne,		San Francisco.....	Ludwig Maximilian Univ., Germany
Los Angeles.....	Coll. of Med. Evangelists	Westdahl, Philip Robert, San Francisco.....	Stanford Univ.
McGregor, Mar Watson, San Francisco.....	Stanford Univ.	Whitsell, Leon Jefferson, San Francisco.....	Stanford Univ.
Merrill, Bruce Robinson,		Wilkinson, William Henry, San Francisco.....	Stanford Univ.
San Francisco.....	Harvard Univ., Mass.	Willett, Forrest Munroe, San Francisco.....	Stanford Univ.
Meyer, Morton Arthur, San Francisco.....	State Univ. of Iowa	Wipperman, Rudolph Paul,	
Meyer, Vincent Stephen, Santa Rosa.....	Stanford Univ.	Patton.....	Coll. of Med. Evangelists
Mitchell, Cyril Louis,			
Santa Monica.....	Coll. of Med. Evangelists		

Name	School
Wood, Walter James, Beaumont.....	Univ. of Oregon
Wright, Thomas Franklin, Los Angeles.....	Coll. of Med. Evangelists
Wyborney, Eugene Henry, Monrovia.....	Univ. of Oregon
Yellin, Daniel, San Francisco.....	Univ. of California
Ziegelstein, Julius, San Francisco.....	Univ. of Hamburg, Germany

### INCOMES OF PHYSICIANS\*

The average physician, according to a study by the Committee on the Costs of Medical Care, sent out bills in 1929 amounting to \$11,200. He collected \$9,020; paid out \$3,716 for overhead and professional expenses; had a net income left of \$5,304. That is, for every dollar's worth of his services which he sold, he received for his own personal use 48 cents.

So far, so good. A net income of \$5,304 a year is a living wage, even for persons who have to spend seven to ten years getting ready to earn it and several more years waiting for the public to find out that they are ready. The joker in the medical-income pack is not the average income. It is the remarkably large number of physicians who never get within signaling distance of the average income. The big majority of doctors are in about the same fix as the big majority of citizens of Dearborn, Michigan. The average income of the people of that town is fine because the Ford family lives there.

#### THOUSANDS ARE UNDERPAID

Half of the 145,000 physicians in the country in 1929 (the \$5,304 average year) had net incomes under \$3,800. Thirty of every hundred had less than \$2,500. Fifteen in every hundred had less than \$1,500. The average income of physicians in 1929 was higher than that of dentists or teachers in colleges, but there was a larger proportion of physicians who earned low incomes (under \$2,000) than there was among dentists, college teachers, mechanical engineers, and professional and scientific workers in government service.

The prosperous group was correspondingly small. Among private practitioners, 5 per cent got nearly 25 per cent of the entire net income. Less than one-fifth of all physicians got half of the total net income received by all physicians put together. Fifty per cent of all physicians got less than one-fifth of the entire income of their profession.

#### HIT BY DEPRESSION

Physicians' incomes fell off, of course, during the depression. From \$5,304 in 1929, the average net income dropped, according to a United States Commerce Department Survey, to \$3,088 in 1933. This was the low year. By 1936, it had climbed back to \$4,484. In California, one of our comparatively wealthy states, one-third of all physicians in 1933 had a net income of less than \$2,000 and half had less than \$2,700.

Salaried physicians' incomes have been more even-tempered. Few salaried physicians have high incomes, the majority have modest but stable incomes, and a much smaller proportion receive low incomes than was the case among general practitioners in private practice in 1929.

A physician has to live and rear a family on a professional man's standard, and to do this with less than \$2,500 a year means hard going.

#### RURAL DOCTORS HAVE SMALL INCOMES

Who were the 42,500 physicians that in 1929 earned net incomes of less than \$2,500? Of course, a certain proportion were young physicians just getting under way. But a considerable number were mature men. Many were doctors in rural areas. In fact, half of all the physicians who were practicing in farming communities in 1929 had net incomes under \$2,500.

Most of the low-income physicians, wherever they lived, were general practitioners, for there is a sharp contrast between the finances of general practitioners and specialists. The net income of general practitioners in 1929 averaged only \$3,900, whereas doctors who were specializing had an average net income of \$10,000.

#### MANY BILLS ARE NOT PAID

A doctor generally feels that he earns all he gets, but he knows that he never gets all he earns. On the average, physicians collect only 80 per cent of the bills they send their patients. And the average does not tell the sad part of the story, because the doctors with highest incomes show the highest percentage of collections, while, unfortunately, those physicians who have the greatest need to be good collectors show the poorest results. In 1929, physicians who earned \$15,000 and over, collected 89 per cent of their bills; whereas those who earned small incomes collected only about 50 per cent.

This means that it is easier to collect if you are working for the well-to-do than for the poor. In towns of less than 5,000 population, physicians collected only 78.5 per cent of their bills. Physicians in cities of one million or more population collected 86 per cent. This does not mean, of course, that rural patients are "slackers." It means that there is less money available for medical care in many rural districts.

The "white man's burden," for the majority of physicians, is threefold. First, high overhead (40 cents of every dollar collected). Second, poor collections (approximately 20 cents on every dollar billed must be charged to "loss"). Third, "free care," which the fine traditions of the medical profession call upon the physician to give.

#### PHYSICIANS RENDER PUBLIC SERVICE

The physician, like the skilled wage-earner, has only time and skill to sell. Unlike a mechanic, however, he is assumed by the public to have time and skill to give away. This difference in the public's attitude is unfair to the physician, but is easily understood. For the medical profession is not a business. It is by tradition and by the practice of the great majority of its members, a public service. And people who cannot pay for mechanics can generally contrive to get along. But sick people who cannot get a physician's care may die.—San Jose *Union Gazette*, July 7.

*Journal Index Reveals Vast Scope of American Medical Association Activities.*—Some conception of the vast scope of the work of the American Medical Association is contained in the semiannual Index Number (June 24) of the Association's *Journal*, an editorial in that issue points out, saying that:

It is recommended particularly that readers consult page 2644 of the index under the heading "American Medical Association." A survey of the material listed will indicate the vast scope of the activities of the Association at this time. It is in a sense a review of the work for the first six months of the year.

"Few people realize the information to be derived merely from turning the pages of an index one by one. For example, the relative amounts of material on page 2646, concerned with anaphylaxis and allergy and with androgens, indicate the extraordinary development of interest in the latter subject during the period covered by this volume.

"No other medical periodical provides in a six months' period the amount of information available through *The Journal of the American Medical Association*. It is with pardonable pride that we assert that the physician who wants to keep abreast of the scientific, political, economic, social, literary, or any other phase of medicine can do so by consistent, thorough reading of this publication."

\* By Constance Kent.



## SUGGESTED LOCAL MEDICAL RELIEF PROGRAM\*

Formulated by Committee on Poor Relief to Assist and Guide County Medical Societies in Negotiations with Relief Authorities

In an effort to assist county medical societies in their negotiations with poor relief authorities relative to the inauguration of a local medical relief program under the provisions of the new State Poor Relief Act, the Committee on Poor Relief of the Ohio State Medical Association has formulated the accompanying skeleton outline of a suggested local medical relief program.

Obviously, the program offered is merely suggestive. No county medical society is obligated to accept it in whole or in part. It may be modified or expanded. If the suggested program is believed to be unworkable or impracticable in the light of local conditions, the county medical society should disregard it and formulate a program of its own liking.

The program suggested is believed to be adaptable to the average county. It may be used as the basis for negotiations with either county or city relief authorities or both. It is designed primarily to provide medical care for those receiving poor relief as defined in House Bill 675, known as the State Relief Act. However, with certain revisions, it could be used as the basis for a medical program for others receiving forms of public assistance, such as aid for aged, aid for dependent children, aid through WPA, etc.

Please note that the committee's suggested program does not specify the fees which should be paid to attending physicians. The fee schedule should be determined by each county medical society, taking into consideration local conditions and the fees charged in private practice.

The committee has tried to keep suggestions relative to routine procedure at a minimum. Elaboration of some of the administrative procedure might be undertaken.

County medical societies should bear in mind that poor relief funds are limited. It will take a reasonable amount of money to make the suggested or any other medical relief program function properly. This fact should be emphasized to relief authorities. But physicians should be made to realize that the program will fail if abuses on the part of relief clients or physicians are tolerated. Available funds will be rapidly depleted if physicians overcharge or render unnecessary or excessive services.

The Medical Advisory Committee, which is recommended, is an important factor in the program. The personnel of that committee should be men of experience, judgment, and courage. It can play an important part in checking abuses if it will function effectively.

Your committee believes that the program it has suggested is fair and reasonable from the standpoint of relief authorities as well as the medical profession. It suggests that each county medical society give the recommendations of the committee careful study and use them as the basis for negotiations with relief authorities if such recommendations meet with the approval of its membership.

If the enclosure is used by a county medical society, it should be retyped with the proper insertions and should be presented to relief authorities as a communication from the county medical society. Then conferences for the purpose of discussing the recommendations and arriving at an agreement should be held.

COMMITTEE ON POOR RELIEF,  
*Ohio State Medical Association.*

(Continued in Front Advertising Section, Page 28)

\* Editor's Note.—This circular and its appended form is given place in CALIFORNIA AND WESTERN MEDICINE because it may have suggestive value to county medical societies when similar set-ups are under consideration in their respective districts.

## SAN DIEGO COUNTY HOSPITAL: RULES OF ADMISSION

### 1. Residence.

A.—State. Patient must be a bona fide resident of the State of California:

1. A bona fide resident for this purpose is one who has lived continuously in the state for a period of three years with the intent to make it his home.

2. Who, during the three-year period aforementioned, has not received any public or private relief or support from friends, charitable organizations, or relatives other than legally responsible relatives; but time spent in a public institution or on parole therefrom shall not be counted in determining the matter of residence in this or another state.

3. Who has not lost his residence by remaining away from this state for an uninterrupted period of one year. Absence from the state for labor or other special or temporary purposes does not occasion loss of residence.

B.—County. Patient must be a resident of San Diego County:

1. A person who is a resident of California . . . is a lawful resident of the county . . . if he has resided therein continuously for one year immediately preceding his application for assistance. . . . Persons with no such one-year county residence in any county will be admitted to the San Diego County Hospital if San Diego County is the county wherein he was present for the longest time during the three-year period of establishment of state residence. Time spent in a public institution or on parole therefrom or in a private charitable institution shall not in any case be counted in determining the matter of county residence.

C.—Unless specifically provided to the contrary in the foregoing, the rules of Section 52 of the Political Code shall apply in determining residence:

1. Section 52. "Every person has, in law, a residence. In determining the place of residence the following rules are to be observed:

a. It is the place where one remains when not called elsewhere for labor or other special or temporary purpose, and to which he returns in seasons of repose:

b. There can only be one residence;

c. A residence cannot be lost until another is gained;

d. The residence of the father during his life, and after his death the residence of the mother, while she remains unmarried, is the residence of the unmarried minor child;

e. The residence of the husband is the residence of the wife;

f. The residence of an unmarried minor who has a parent living cannot be changed by either his own act or that of his guardian. (See note.)

g. The residence can be changed only by the union of act and intent.

(1) The legal guardian of a child who is eligible to, or receiving aid to dependent children, can change the residence of the child.

(2) Child declared free from custody of parents is a resident of the county from which the court order was issued.

### 2. Indigency.

A.—Definition:

The word "indigent" includes: (1) A dependent poor person with no income, or (2) a person eligible to and receiving public relief, or (3) a person in need of hospital care with insufficient means to pay for his maintenance in a private hospital.

1. Insufficient means.

a. Minimum budget:

The accepted minimum budget covering the necessities of life is \$60 for the wage-earner and \$10 for each dependent.

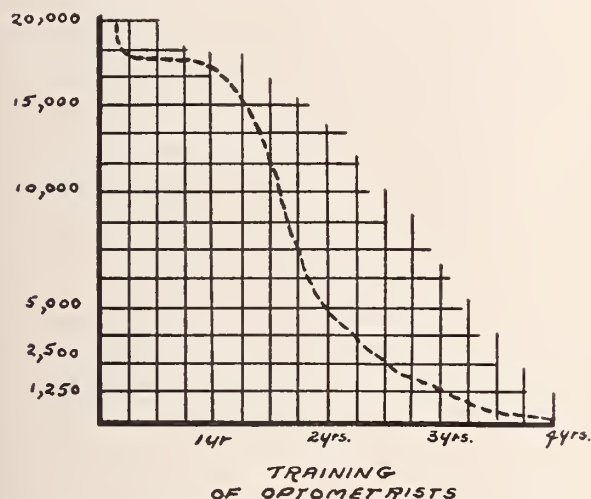
(Continued in Front Advertising Section, Page 31)

## TRAINING OF OPTOMETRISTS\*

To the Editor:

Optometrists have received some attention in the editorial column of the *Journal of the Connecticut State Medical Society*.<sup>1,2</sup> Further data is available to explain the general disapproval of the majority of physicians for optometry. Superficial consideration of this grave problem may have led certain individuals to be more lenient in their attitude toward optometry than the facts warrant. A brief survey of the situation, from the standpoint of the educational standards of optometrists, should be of value to all interested in this problem.

Before we consider the optometrist's qualifications, let us admit that optometrists are practicing medicine, so far as concerns the eyes. They deal with an organ whose loss from whatsoever cause becomes a serious handicap. They are in the business of improving the eyesight. They are called "doctor" and many people think they have the medical background which their title implies. Optometrists should be classed among other cultists, who attempt to practice the healing arts, including preventive medicine, but who have insufficient medical training. The logical classification for the optometrist is as a technician, similar to the x-ray, or laboratory technician. For the visual safety of the



Graph: Shows number of years of training per thousand for optometrists. Taken from figures compiled by C. W. Rucker, M. D., "Fitters of Spectacles," *Bulletin Hennepin County Medical Society*, Minneapolis, May 25, 1936.

general public the work of optometrists should be under the direction of ophthalmologists.

Optometrists are playing a far more important rôle in the treatment of eye conditions today than their abilities warrant. Organized optometry has taken advantage of every opportunity to advance the members of its groups. Financially powerful, optometry is now the most potent cult with which medicine has to contend. The ideals of optometrists, as a group, do not have anything in keeping with the Hippocratic Oath. It has been said that optometrists are interested only in the sale of merchandise.

For nonmedical appraisals of optometry, all physicians should be acquainted with the article by R. W. Riis, "Optometry on Trial."<sup>3</sup> Another illuminating article was written for the book "America Now."<sup>4</sup> The latest and best

(Continued in Back Advertising Section, Page 38)

\* From the *Journal of the Connecticut State Medical Society*.

<sup>1</sup> Optometry and Ophthalmology, Editorial, Jour. Conn. State Med. Soc., p. 299 (June), 1939.

<sup>2</sup> Wies, F. A., M. D.: A Dissenting Opinion on Optometrists, Jour. Conn. State Med. Soc., p. 435 (August), 1939.

<sup>3</sup> Riis, R. W.: Optometry on Trial, Readers Digest, pp. 77-85 (August), 1937.

<sup>4</sup> Optometrists, Edited by H. E. Stearns, "America Now," pp. 419-421. Literary Guild of America, New York City.

## REGISTERED DISPENSING OPTICIANS: A NEW CALIFORNIA LAW

Of interest to physicians who specialize in ophthalmology should be the new law enacted at the recent legislative session, which provides for the registration of opticians. This law, submitted at Sacramento as Assembly Bill 916, and regulating the business of dispensing opticians, was signed by Governor Culbert L. Olson on July 25, 1939. Every dispensing optical establishment engaged in the business of filling prescriptions for oculists is now required to have a license; administration of the law is placed in the hands of the Medical Board.

The law as enacted was sponsored by the California Association of Dispensing Opticians with the acquiescence of the Western Optical Wholesalers' Association. The law was passed by both Houses of the Legislature without a single dissenting vote. It brings to a successful close a matter which was of the gravest concern to dispensing opticians and oculists. Prior to the enactment of the law the contention was made that the services of dispensing opticians in filling prescriptions for oculists could only be performed by licensed optometrists.

Great credit for the passage of the measure is unquestionably due to the medical profession of the State of California. It was their vigorous support of the legislation, and in particular the efforts of certain members who gave unstintingly of their time, that assured passage of the law by convincing the Legislature and the Governor of the equity and need for the new measure.

1 1 1

The law as enacted reads as follows:

SECTION 1. Chapter 5.5, comprising Sections 2250 to 2558, inclusive, is hereby added to Division II of the Business and Professions Code, to read as follows:

### CHAPTER 5.5. REGISTERED DISPENSING OPTICIANS

#### Article I. General Provisions

2250. Individuals and firms filling prescriptions of physicians and surgeons licensed by the Board of Medical Examiners for ophthalmic lenses and kindred products, and, as incidental to the filling of such prescriptions, taking facial measurements and fitting and adjusting lenses or frames, shall be known as dispensing opticians and shall not engage in such business unless registered with the Board of Medical Examiners.

2251. Individuals and firms engaged in such business on the effective date of this act shall apply for such registration within ninety days from the effective date hereof. Thereafter, before engaging in such business, application shall be made for registration. Application for such registration shall be on forms prescribed by the board, shall bear the signature of the individual, or individuals if a copartnership, or the president or secretary if a corporation, and shall contain the name under which he, they or it proposes to do business and the business address. Separate applications shall be made for each place of business and each application must be accompanied by a registration fee of \$25.

2252. Each application, to enable the Board to determine if the applicant is entitled to be registered under this chapter, shall contain:

(a) The name and experience of each person who will take facial measurements and fit and adjust lenses or frames. Each such person shall have a minimum of two years' previous experience in the taking of facial measurements and the fitting and adjusting of lenses and frames.

(b) The recommendation of three physicians and surgeons licensed by the Board of Medical Examiners who specialize in the treatment of the eyes as part of their practice that the applicant is competent and qualified to accurately fill prescriptions for ophthalmic lenses.

(Continued in Back Advertising Section, Page 40)



**NURSING PRACTICE ACT—1939\****State of California**Department of Professional and Vocational Standards**Board of Nurse Examiners*

(COPY)

**Nursing Practice Act**

Signed by the Governor July 17, 1939

Became a law September 19, 1939

*An act to repeal Chapter 6, comprising Sections 2700 to 2784, inclusive, of Division II, and to add Chapter 6, comprising Sections 2700 to 2830, inclusive, to Division II, of the Business and Professions Code, relating to the practice of professional nursing, nursing schools, and students in schools of nursing.*

*The people of the State of California do enact as follows:*

Section 1. Chapter 6, comprising Sections 2700 to 2784, inclusive, of Division II of the Business and Professions Code is hereby repealed.

Sec. 2. Chapter 6, comprising Sections 2700 to 2830, inclusive, is hereby added to Division II of the Business and Professions Code, to read as follows:

**CHAPTER 6. NURSING****Article 1. Administration**

2700. This chapter of the Business and Professions Code constitutes the chapter on professional nursing and shall be construed as revisory and amendatory of the laws heretofore enacted. It may be cited as the Nursing Practice Act.

2701. There is hereby created in Division I of the Department of Professional and Vocational Standards, a Board of Nurse Examiners of the State of California, consisting of five members.

Within the meaning of this chapter, board, or the board, refers to the Board of Nurse Examiners of the State of California.

2702. Each member of the board shall be a citizen of the United States, a resident of the State of California, a licensed professional nurse under the provisions of this chapter, shall have had at least seven years' experience in the active practice of his profession, and shall have been actually engaged in active practice within two years of his appointment. At least four members of the board shall have had not less than five years' experience as a teacher or administrator in an accredited school of nursing or in a public health nursing organization.

No person may serve as a member of the board for more than two consecutive terms.

2703. Members of the board shall be appointed by the Governor for a term of four years. The terms of the members of the board first appointed under this chapter shall expire as follows: one on January 15, 1941; one on January 15, 1942; one on January 15, 1943; two on January 15, 1944. Vacancies occurring shall be filled by appointment for the unexpired term in the manner hereinabove provided.

2704. The Governor shall exercise his right of appointment within sixty days from the date a vacancy occurs or a member's term expires, and when not so exercised the board by a majority vote of its remaining members may appoint a person to fill the vacancy.

2705. Before entering upon the duties of his office, each member of the board shall take the constitutional oath of office.

2706. The Governor has the power to remove any member of the board from office for neglect of any duty required by law, or for incompetency, or unprofessional or dishonorable conduct.

2707. The board at its first meeting after appointment, and annually thereafter at its first meeting in each year, shall elect from its members a president, vice-president, and such other officers as it may deem necessary. The officers of the board shall hold their respective positions during its pleasure.

2708. The board shall select an executive secretary, who shall perform such duties as are delegated by the board and who shall be responsible to it for the accomplishment of such duties.

The person selected to be the executive secretary of the board shall be a duly licensed nurse under the provisions of this chapter and shall have had not less than seven years of active nursing practice, of which not less than two years shall have been in an administrative or teaching capacity in an accredited school of nursing or public health service. The executive secretary shall not be a member of the board.

With the approval of the Director of Finance, the board shall fix the salary of the executive secretary.

The executive secretary shall be entitled to traveling and other necessary expenses in the performance of his duties. He shall make a statement, certified before some duly authorized person, that the expenses have been actually incurred.

2709. The board, for the purpose of transacting its business, shall meet at least once every three months, at times and places it designates by resolution.

2710. Special meetings may be held at such times as the board may elect, or on the call of the president of the board, or of not less than three members thereof.

A written notice of the time, place and object of any special meeting shall be mailed by the executive secretary to all members of the board who are not parties to the call, at least fifteen days before the day of the meeting.

2711. Meetings may be held at any time and place by the written consent of all members of the board.

2712. Three members of the board constitute a quorum for the transaction of business at any meeting.

2713. The board shall keep a record of all its proceedings, including a register of all applicants for licenses under this chapter and the action of the board upon each application.

2714. The office of the board shall be in the city of Sacramento. Suboffices may be established in Los Angeles and San Francisco and such records as may be necessary may be transferred temporarily to them. Legal proceedings against the board may be instituted in any county in which any of the three cities above mentioned is located.

2715. The board shall prosecute all persons guilty of violating the provisions of this chapter.

It may employ inspectors, special agents, investigators, and such clerical assistance as it may deem necessary to carry into effect the provisions of this chapter. The board may fix the compensation to be paid for such services and may incur such other expenses as it may deem necessary.

The board shall have and use a seal bearing the name "Board of Nurse Examiners of the State of California" and may from time to time adopt such rules and regulations as may be necessary to enable it to carry into effect the provisions of this chapter.

2716. Each member of the board shall be paid the sum of ten dollars per diem for each and every day actually spent in the discharge of official duties, and shall be further entitled to his actual travel and other necessary expenses incurred in the performance of his duties.

Each member of the board shall make a statement, certified before some duly authorized person, that the service has been actually performed and the expenses actually incurred.

2717. On or before the first day of January of each year the board shall transmit to the Governor a full and

\* Printed in California State Printing Office, Sacramento: George H. Moore, State Printer. Job No. 75856.

true report of all its proceedings, together with a report of all its receipts and disbursements.

2718. An advisory council, to be known as the advisory council to the Board of Nurse Examiners of the State of California, is hereby created. The advisory council shall be composed of two persons who are members of and shall represent the California State Medical Association, one person who is a member of and shall represent the Association of California Hospitals, one person who is a member of and shall represent the Western Conference of Catholic Hospital Associations, one person who is a member of and shall represent the California League of Nursing Education, one person who is a member of and shall represent the California Organization for Public Health Nursing, one person who is a member of and shall represent the California State Nurses' Association, one person who as [is] a member of and shall represent the California State Education Association, all of whom shall be appointed to serve for a period of three years by the Board of Nurse Examiners in the manner hereinafter provided, the Director, State Department of Public Health, who shall be a member ex officio, and three lay members, representing the public, who shall be appointed by the Governor of the State of California to serve for a term of three years.

Within thirty days after this act goes into effect, and thereafter within thirty days after any vacancy occurs, each of the above-mentioned organizations whose members may be qualified to fill the vacancy and/or vacancies then existing, shall submit to the Board of Nurse Examiners the names of persons qualified to represent it on said advisory council, from which said list the board shall make its appointments. The list or lists so submitted shall each contain not less than twice the number of names of qualified persons as there shall be vacancies existing.

2719. The advisory council shall organize by the election of a president, vice-president, and secretary, and shall meet at least twice each year and at other times on the call of the president or the written demand of any five members. It shall be the duty of the council to advise with the Board of Nurse Examiners concerning any and all matters coming within the purview of this chapter and the enforcement thereof, which in the opinion of the Board of Nurse Examiners and/or the advisory council shall be deemed necessary and/or expedient.

2720. The members of the advisory council shall receive no compensation, but shall receive the actual and necessary expenses incurred by them in the performance of their duties.

## Article 2. Scope of Regulation

2725. The practice of nursing within the meaning of this chapter is the performing of professional services requiring technical skills and specific knowledge based on the principles of scientific medicine, such as are acquired by means of a prescribed course in an accredited school of nursing as defined herein, and practiced in conjunction with curative or preventive medicine as prescribed by a licensed physician and the application of such nursing procedures as involve understanding cause and effect in order to safeguard life and health of a patient and others.

A professional nurse, within the meaning of this chapter, is a person who has met all the legal requirements for licensing as a registered nurse in the State and who for compensation or personal profit engages in nursing as the same is hereinabove defined.

2726. This chapter confers no authority to practice medicine or surgery or to undertake the prevention, treatment or cure of disease, pain, injury, deformity, or mental or physical condition in violation of any provision of law.

2727. This chapter does not prohibit:

(a) Gratuitous nursing of the sick by friends or members of the family.

(b) Incidental care of the sick by domestic servants or by persons primarily employed as housekeepers as long as they do not practice nursing within the meaning of this chapter.

(c) Domestic administration of family remedies by any person.

(d) Nursing services in case of an emergency.

(e) The performance by any person of such duties as are required in the physical care of a patient and/or carrying out medical orders prescribed by a licensed physician; provided, such person shall not in any way assume to practice as a professional, registered, graduate or trained nurse.

2728. If adequate medical and nursing supervision by a professional nurse or nurses is provided, nursing service may be given by attendants in institutions under the jurisdiction of or subject to visitation by the State Department of Public Health or the State Department of Institutions.

*The Director of Institutions shall determine what shall constitute adequate medical and nursing supervision in any institutions under the jurisdiction of the State Department of Institutions.*

2729. Nursing services may be rendered by a student enrolled in an accredited school of nursing when these services are incidental to his course of study, and may be rendered by a graduate of such school working under its supervision pending the results of the first licensing examination scheduled by the board following his graduation, if this examination is taken by him.

2730. If he does not represent or hold himself out as a professional nurse licensed to practice in this State and if he has an engagement, made in another state or country, requiring him to accompany and care for a patient temporarily residing in this State during the period of such engagement, a nurse legally qualified by another state or country may give nursing care to such patient in this State.

2731. This chapter does not prohibit nursing or the care of the sick, with or without compensation or personal profit, when done by the adherents of and in connection with the practice of the religious tenets of any well-recognized church or denomination, so long as they do not otherwise engage in the practice of nursing.

2732. No person shall practice nursing as the same is herein defined without a license issued under this chapter except as in this act provided.

Every licensee may be known as a registered nurse and may place the letters "R. N." after his name.

2733. The board upon written application and receipt of the required registration fee may issue a license without examination to any applicant who has been duly licensed or registered as a nurse under the laws of another state or foreign country, and who, in the opinion of the board, meets all the other requirements set forth in Section 2736.

Upon the filing of an application and the payment of the fee as in the previous paragraph provided, the board, in its discretion, upon the request of the applicant and upon payment of an additional fee of two dollars, may issue to said applicant a temporary license to engage in the practice of nursing for a period of not more than four weeks from date of issuance. Not more than one temporary license may be issued to the same individual during any twelve-month period.

2734. Any person who has heretofore graduated from an accredited school of nursing and who at the time this chapter takes effect has been engaged in the practice of nursing in this State for not less than five years and who is a resident of this State shall be eligible to take the examination for a license.

He shall file an application in such form as may be prescribed by the board, together with the affidavit of two or more licensed physicians, setting forth the times, places, and extent of his services and the period of his residence in this State, and shall pay the fee prescribed by this chapter for the filing of an application.



2735. Any person who at the time this act takes effect has received a certificate as a registered nurse issued by the Bureau of Registration of Nurses or the Department of Public Health, upon making application therefor on such form as shall be prescribed by said board and the payment of the renewal fee hereinafter provided, shall be granted a license without examination. Every registered nurse who fails to make application for a license prior to March 1, 1940, may be required to take and pass a written or oral examination at the discretion of the board.

2736. An applicant shall comply with each of the following:

(a) Be at least twenty-one years of age.

(b) Be a citizen of the United States or have declared his intention to become a citizen of the United States.

(c) Have successfully completed at least an approved high school course of study or the equivalent thereof as determined by the board, and such other preliminary requirements as the board may prescribe.

(d) Have successfully completed the prescribed course of study in an accredited school of nursing or have graduated from a school which, in the opinion of the board, maintains and gives a course which is equivalent to the minimum requirements of the board for an accredited school in this State.

(e) Have committed no act, which, if committed by a licensee, would be a ground for disciplinary action.

2737. An applicant for a license authorizing him to practice nursing in this State under this chapter, upon the filing of his application shall pay the fee required by this chapter.

2738. The board shall hold not less than two examinations each year for applicants desirous of practicing nursing in this State, at such times and places as the board may determine.

2739. Not less than two months prior to the date of each examination, the board shall cause a notice thereof to be published in two or more newspapers of general circulation, and one nursing journal, all published within the State of California and selected by the board.

2740. Examinations shall be written, but in the discretion of the board may be supplemented by an oral or practical examination in such subjects as the board determines. All examinations shall be conducted by such persons and in such manner and under such rules and regulations as the board may prescribe.

The board shall finally pass or reject all applicants. Its actions shall be final and conclusive and not subject to review by any court or other authority.

2741. Any applicant who fails to pass the examination by the board may take another examination without payment of an additional fee, if not less than six nor more than twelve months have elapsed from the date he took the first examination.

Upon the failure of an applicant to pass the second examination, the board may require him to complete additional courses or study designated by it. Before taking any subsequent examination he shall present to the board satisfactory evidence of having completed such additional courses or study, and shall pay an additional fee equal to the fee prescribed by this chapter for the filing of an original application.

2742. The board shall issue a license to each applicant who passes the examination. The form of the license shall be determined by the board.

2743. A license issued to a person not a citizen of the United States, but who has declared his intention of becoming a citizen, shall terminate and become void at the end of seven years from the date of filing such declaration of intention if such person has not then become a citizen. A license so terminated may be reissued by the board at any time thereafter upon evidence of citizenship and an explanation of the delay satisfactory to the board.

2744. The board, in its discretion, may permit any person who has successfully completed his course of study in an accredited school of nursing in California, but who is not a citizen of this country or has not declared his intention to become a citizen of the United States, to apply for and upon payment of the fees herein prescribed to take the examination given to applicants for a license to practice nursing. The board shall report to each person permitted to take the examination whether or not he has attained a passing grade. No license, however, may be issued to such person. In the event that such person thereafter files his intention to become a citizen of the United States, he must be successfully reexamined before being licensed to practice nursing in this State.

2745. Nothing in this chapter shall apply to any nurse employed in the public health service or by any agency, bureau or division of the Federal Government while in the discharge of his official duties, nor to any nurse employed by the United States Government or any bureau, division or agency thereof, in any hospital wholly maintained and supported by it in the State of California while in the discharge of his duties in such institution.

### Article 3. Disciplinary Proceedings

2750. Every licensee may be disciplined as provided in this article.

2751. No disciplinary action shall be taken against any licensee until the board follows the procedure provided in this article.

2752. On the filing at any office of the board of a sworn complaint charging a person with having been guilty of any of the actions specified as a ground for disciplinary action, the executive secretary of the board shall forthwith issue a citation in the name of the board.

The executive secretary of the board shall file a sworn complaint when directed by the board to do so, or of his own volition.

All citations shall be made returnable at any regular or special session of the board occurring at least thirty days next after the filing of the complaint.

2753. The citation shall notify the person accused of the charges made in the complaint, when and where the charges will be heard and that he shall file his verified written answer within twenty days next after the service on him of the citation or that default will be taken against him and he will be placed on probation, his license suspended or revoked, or other action taken.

2754. The attendance of witnesses and the production of books, papers, and documents at the hearing may be compelled by subpoenas issued by the executive secretary in the name of the board. The citations and subpoenas shall be served in accordance with law. All the provisions of law relating to subpoenas and to citations are applicable to the subpoenas and citations provided for in this article.

2755. If any person refuses to obey a subpoena or citation, the executive secretary shall certify the fact to the superior court of the county in which the service was made. The court shall thereupon proceed to hear the matter in accordance with the laws concerning contempt for disobedience of process of the court and, if the court finds that the subpoena or citation has been legally served and that the party so served has wilfully disobeyed it, the court shall proceed as provided for a contempt of court.

2756. In all proceedings under this chapter, depositions of witnesses may be taken as in civil cases, and all the provisions of law concerning the taking of depositions are applicable to the taking of depositions under this chapter.

2757. If the person accused fails to file his verified answer with the executive secretary within twenty days after service of the citation on him, or within such further time as the board may allow, and the charges on their face are deemed sufficient by the board, a default shall be entered against him and disciplinary action taken.

2758. If the charges on their face are deemed sufficient by the board and issue is joined by the answer, the board shall determine the matter and to that end shall hear such evidence as may be adduced before it.

In the conduct of disciplinary hearings, the board is not bound by the common law or statutory rules of evidence or procedure, but may make inquiry in a manner, through oral and written testimony, which is best calculated to ascertain the substantial rights of the person accused and the public.

If it appears to the satisfaction of the board that the person accused is guilty as charged, disciplinary action shall be taken.

2759. The board shall discipline the holder of any license, whose default has been entered or who has been heard by the board and found guilty, by any of the following methods:

- (a) Suspending judgment.
- (b) Placing him upon probation.
- (c) Suspending his right to practice nursing for a period not exceeding one year.
- (d) Revoking his license.
- (e) Taking such other action in relation to disciplining him as the board in its discretion may deem proper.

2760. If the holder of a license is suspended, he shall not be entitled to practice nursing during the term of suspension.

Upon the expiration of the term of suspension, he shall be reinstated by the board and shall be entitled to resume his practice of nursing unless it is established to the satisfaction of the board that he has practiced nursing in this State during the term of suspension. In this event, the board shall revoke his license.

2761. The board shall take disciplinary action against a licensed nurse or an applicant for a license for:

- (a) Unprofessional conduct.
- (b) Procuring his certificate by fraud, misrepresentation, or mistake.
- (c) Procuring, or aiding, or abetting, or attempting, or agreeing, or offering to procure or assist at a criminal abortion.
- (d) Violating or attempting to violate, directly or indirectly, or assisting in or abetting the violating of, or conspiring to violate any provision or term of this chapter.
- (e) Making or giving any false statement or information in connection with the application for issuance of a license.

(f) Conviction of a felony or of any offense involving moral turpitude, in which event the record of the conviction shall be conclusive evidence thereof.

(g) Insanity, in which event the record of the adjudication, order or commitment of insanity shall be conclusive evidence thereof.

(h) Impersonating any applicant or acting as proxy for an applicant in any examination required under this chapter for the issuance of a license.

(i) Impersonating another licensed practitioner, or permitting or allowing another person to use his certificate for the purpose of nursing the sick or afflicted.

(j) Habitual intemperance or addiction to the excessive use of cocaine, opium, marijuana, morphin, codein, alpha eucaine, beta eucaine, or chloral hydrates, or any of the salts, derivatives or compounds of the foregoing substances.

(k) Aiding or assisting, or agreeing to aid or assist any person or persons, whether a licensed physician or not, in the performance of or arranging for a violation of any of the provisions of Article 13, Chapter 5, Division II of this code.

#### Article 4. Nursing Schools

2785. The board shall prepare and maintain a list of accredited schools of nursing in this State whose graduates,

(Continued in Back Advertising Section, Page 44)

## TRAINED ATTENDANT ACT

(COPY)

### Trained Attendant Act

[Act approved May 5, 1919; Statutes 1919, p. 242]

*An act to add Chapter 10, comprising Sections 4500 to 4551, inclusive, to Division II and to add Section 30007 to Division XXX of the Business and Professions Code, relating to the care of the sick or afflicted by trained attendants and repealing acts and parts of acts specified herein.*

[Approved by the Governor on June 17, A. D. 1937]

*The people of the State of California do enact as follows:*

Section 1. Chapter 10, comprising Sections 4500 to 4551, inclusive, is hereby added to Division II of the Business and Professions Code to read as follows:

#### CHAPTER 10. TRAINED ATTENDANTS

##### Article 1. Administration

4500. Within the meaning of this chapter, department, unless otherwise specified, means the State Department of Public Health.

4501. The department may:

- (a) Issue certificates to applicants to care for the sick as trained attendants.
- (b) Formulate and issue rules and regulations from time to time as may be necessary for the proper conduct of the care of the sick by a trained attendant.
- (c) Establish centers of training for trained attendants.
- (d) Prescribe the course of instruction and length thereof.
- (e) Provide for an examination before a certificate may be issued.

##### Article 2. Regulations

4515. Any person applying for the certificate as trained attendant shall be at least eighteen years of age and of good moral character.

4516. He shall have had not less than one year's practical experience in the care of the sick in a reputable hospital or sanatorium, connected with a school for trained attendants, and systematic instruction in the following subjects: anatomy and physiology; hygiene; diet for the sick; nursing care of the sick, including children and the aged; and obstetrics.

4517. All applicants for certificates as trained attendants shall be required to pass an examination. The examination shall be practical in character and designed to ascertain the applicant's fitness to practice his calling.

4518. It shall be conducted by a committee of three examiners appointed by the department and under such rules and regulations as the department may prescribe. It shall be held at least every six months, and due notice of the examination shall be published in not less than three daily papers of the State.

4519. The subjects on which applicants shall be examined are elementary anatomy and physiology; hygiene; diet for the sick; nursing methods in the care of the sick, including children and aged people; and obstetrics. The department shall issue a certificate to each applicant successfully passing this examination.

4520. All persons who have received certificates in accordance with the provisions of this chapter shall be known and styled as trained attendants and may use the words "trained attendant" after their names.

##### Article 3. Revocation of Certificates

4530. The department may revoke a certificate issued to any person for gross incompetency, dishonesty, addiction to the use of alcohol or narcotic drugs, or for any habit rendering him unsafe or unfit to care for the sick. Before revocation, notice of the charges shall be sent to the defendant with opportunity to appear in his own defense.

(Continued in Back Advertising Section, Page 47)



## TWENTY-FIVE YEARS AGO<sup>†</sup>

### EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XII, No. 10, October, 1914

#### From Some Editorial Notes:

*Real Help.*—A member who contemplated the purchase of an x-ray outfit notified the JOURNAL office of his intention to make such a purchase, and asked if it would be any help to us if he were assisted in this matter by some of our advertisers. It certainly was. It is just this sort of personal interest and coöperation that will make your JOURNAL a larger and a better publication. If all of our members would follow this example and purchase what they want through our advertisers, or at least take an interest in them and get them to see that advertising means real friendly relations, it would help the JOURNAL tremendously. All of our advertisers are reliable and their products are good; why not help yourself by establishing relations with them? In the first month after running the advertisement of the Uncle Sam Breakfast Food, which is a genuine article of merit, packed and advertised in ways that have been carefully scrutinized and approved by the Council on Pharmacy and Chemistry of the American Medical Association, only eight requests for sample packages were received. This is certainly not the hearty coöperation which a concern is entitled to if it goes to the trouble and expense of changing its packages, labels and literature to conform to professional standards. Will you not fill in the coupon you will find attached to their ad and send it in? Take a little interest in the people who are taking enough interest in you to spend their money with you, and so help your JOURNAL to be what it is and to grow. Incidentally,—but, of course, you are not interested in this,—in many instances you will actually save money by trading with your own advertisers!

\*\*\*

*Council Meeting.*—A meeting of the Council of the State Society was held on September 12, at which meeting nine of the twelve Councilors, and the President and Secretary were present. In view of the fact that the American Medical Association is to meet in San Francisco in June, and that a considerable number of members had requested that the annual meeting of the State Society be dispensed with in April, 1915, because of the other and larger meeting in June, the Secretary was instructed to take a mail ballot of the House of Delegates to determine whether the meeting of the State Society should be omitted and things go along as they are until April, 1916.

\*\*\*

*Medical Defense.*—Owing to the fact that friction has developed on several occasions (when members, sued for alleged malpractice, held insurance policies in some company), between the attorneys for the company and the attorney for the Society, the following action was taken: The Secretary was instructed to notify any member who might be sued and who is insured in some company, that it will be necessary for him to choose which agency he will elect to defend his interests, and the reasons for this; and further to notify him that the attorney for the Society will watch the conduct of the case and if necessary or desirable will advise with or coöperate with the attorney for the company. The object is not to avoid doing any of this work for our members, but to see that the work is done in the best and most business-like way; every member's interests will be watched and guarded without fail. . . .

(Continued in Front Advertising Section, Page 18)

<sup>†</sup> This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

## BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA<sup>†</sup>

By CHARLES B. PINKHAM, M. D.  
Secretary-Treasurer

### News

"Two San Francisco physicians were arrested today on felony charges by agents of the State Division of Narcotics. Warrants, issued by Municipal Judge Peter J. Mullins at the request of Special Agents Leo Rice and Marshall Burnett, charged Dr. Percy McMurdo, 57, with one count of sale of narcotics and two counts of furnishing narcotics to an addict, and Dr. Clarence Griffith Potter, 47, with two counts of sale and count of possession of narcotics. The physicians were released on \$500 bail each. . . ." (San Francisco *News*, September 1, 1939.)

"A chiropractic initiative measure, scheduled for submission to the people at the November 7 special election, brought charges of collusion and 'stacking the deck' today from Frank V. Kington, Redwood City attorney. Kington charged there has been collusion between individuals named by Lieutenant-Governor Ellis E. Patterson to write arguments for and against the measure. Patterson recently appointed Dr. Stanley Innes, San Jose; Dr. George E. Swanson, Berkeley, and Dr. W. F. Morris, Oakland, to write official arguments in favor of the proposition. He named Mrs. Elsie James and Mrs. Mildred S. Potts, both of Berkeley, to write the opposing arguments. Kington charged that he has proof Mrs. Potts is a friend of Doctor Morris, whom he accused of helping the women prepare their argument. A report from the bureau of criminal identification said both favorable and opposing arguments had been written on the same type of stationery and the same typewriter. The secretary of state's office has deferred printing the arguments pending a decision by Patterson." (San Francisco *Examiner*, August 23, 1939.)

"Lieutenant Governor Ellis Patterson today requested writers of opposing arguments to the amendment to the State chiropractic act to withdraw, and named three other persons to replace them. The women, Mrs. Mildred S. Pitts [Potts] and Mrs. Elsie James, both of Berkeley, were accused of collusion with writers of arguments favorable to the amendment to offer weak arguments, in a protest filed with the Secretary of State, by Frank Kington, on behalf of the Chiropractic League of California. The new appointees are Dr. Roy G. Labachotte, Redwood City; Dr. T. F. Ratledge, Los Angeles, and Dr. L. H. McLellan, San Jose. The arguments are to appear in the voters' pamphlet distributed by the State." (Oakland *Tribune*, August 25, 1939.)

"Chiropractors favoring the enactment of new legislation in their field on November 7 yesterday filed an injunction suit in the local Superior Court to prevent Secretary of State Frank Jordan from mailing their opponent's argument against the proposed chiropractic amendment to all voters with sample ballots. Particularly attacked in the suit filed by George Swanson of Oakland is the contention in the argument that the new amendment would permit chiropractors to deliver babies. Such an argument is untrue, Swanson's suit contends. . . ." (San Francisco *Examiner*, September 6, 1939.)

(Continued in Front Advertising Section, Page 24)

<sup>†</sup> The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.



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*Superintendent*

### SAN DIEGO COUNTY HOSPITAL: RULES OF ADMISSION

(Continued from Front Advertising Section, Page 31)

*e. Ownership of luxuries, etc.:*

Ownership of luxuries, or unnecessary articles or equipment will render a person ineligible for free medical care if the market value of these articles would release sufficient money to pay for the needed care.

*f. Savings accounts:*

Ordinarily, it is expected that savings accounts will be used to pay for necessary care with the exception of elderly people who have no insurance. This savings in an amount not to exceed \$125 may then be considered in the nature of a burial fund, and to meet other emergencies.

**3. Indigents Nonresidents.**

A.—Emergency cases of indigents, residents of other counties, shall be transferred to their respective counties at the direction of the Hospital Superintendent.

B.—In the case of nonresidents the place of legal residence and securing permission to return the families shall be determined immediately by the medical social worker through the County Welfare Department.

C.—Persons receiving old-age assistance, blind aid or aid to dependent children, who are residents of other counties but who have moved to San Diego County, shall be provided with the necessary medical or hospital, or both, care, if needed, during the one-year period of establishment of residence in San Diego County on condition that payment be demanded of the county granting aid not in excess of the cost of such medical and hospital care.

**4. Emergency Aid.**

A.—No hospitalization, surgical or medical aid, shall be given to any person who is financially able to pay for the

same or who has relatives, a guardian, or agent who are legally responsible and financially able to pay, with the following exceptions:

1. Emergency cases;

2. Pay patients may be received at Vauclain Home, the Contagious Department and the Psychopathic Department of the County Hospital.

B.—All persons who are financially able or who have relatives, a guardian or agent who are legally responsible to pay for such services and who may have been taken to the County Hospital for emergency relief or treatment shall be removed therefrom as soon as their physical condition enables such removal to be made without danger to the patient, as determined by the Superintendent of the County Hospital directly, or by authority granted by him to the attending staff.

C.—(Adopt new law.)

**5. Payment of Charges.**

A.—Financial ability to pay:

(See Section 10, Rule B, Administrative Code—Section 4, Emergency Aid.)

B.—All persons who have been taken to the County Hospital for emergency relief or treatment (as provided under Rule B) and who are financially able so to do shall promptly pay all charges in accordance with rates fixed by the County Hospital Committee. The District Attorney may be authorized by the Board of Supervisors to sue for collections of such costs and charges whenever a petition therefor is made by the Superintendent of said institution. When so authorized by the Board of Supervisors, the District Attorney shall proceed to make such collections, according to law.

(Continued on Page 36)

## Old Way...

### CURING RICKETS in the CLEFT of an ASH TREE

FOR many centuries,—and apparently down to the present time, even in this country—ricketic children have been passed through a cleft ash tree to cure them of their rickets, and thenceforth a sympathetic relationship was supposed to exist between them and the tree.

Frazer\* states that the ordinary mode of effecting the cure is to split a young ash sapling longitudinally for a few feet and pass the child, naked, either three times or three times three through the fissure at sunrise. In the West of England, it is said the passage must be "against the sun." As soon as the ceremony is performed, the tree is bound tightly up and the fissure plastered over with mud or clay. The belief is that just as the cleft in the tree will be healed, so the child's body will be healed, but that if the rift in the tree remains open, the deformity in the child will remain, too, and if the tree were to die, the death of the child would surely follow.

\*Frazer, J. G.: The Golden Bough, vol. 1, New York, Macmillan & Co., 1923



It is ironical that the practice of attempting to cure rickets by holding the child in the cleft of an ash tree was associated with the rising of the sun, the light of which we now know is in itself one of Nature's specifics.

## New Way...

### Preventing and Curing Rickets with OLEUM PERCOMORPHUM

NOWADAYS, the physician has at his command, Mead's Oleum Percomorphum, a natural vitamin D product which actually prevents and cures rickets, when given in proper dosage.

Like other specifics for other diseases, larger dosage may be required for extreme cases. It is safe to say that when used in the indicated dosage, Mead's Oleum Percomorphum is a specific in almost all cases of rickets,

regardless of degree and duration. Mead's Oleum Percomorphum because of its high vitamins A and D content is also useful in deficiency conditions such as tetany, osteomalacia and xerophthalmia.

Mead's Oleum Percomorphum is not advertised to the public and is obtainable at drug stores in boxes of 25 and 100 10-drop capsules and 10 and 50 c.c. bottles. The large bottle is supplied, at no extra cost, with Mead's patented Vacap-Dropper. It keeps out dust and light, is spill-proof, unbreakable, and delivers a uniform drop.

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130 STORES ON THE PACIFIC COAST

### SAN DIEGO COUNTY HOSPITAL: RULES OF ADMISSION

(Continued from Page 34)

#### 6. Services.

##### A.—Isolation:

Except in the Contagious Diseases Unit and the Cancer Clinic, the Hospital does not maintain any particular department or diagnostic service or method of treatment which cannot be obtained in most private hospitals in the county.

##### B.—Venereal diseases:

Patients with venereal diseases, unless acutely ill with complications which require hospital care, should not be admitted to the Hospital, but referred to the City or County Health Department for treatment.

##### C.—Orthopedic appliances:

Orthopedic appliances for children under eighteen are routinely provided in San Diego County under the provisions of the Crippled Children's Act and not as a regular service of the County Hospital.

##### D.—Examination for probation department:

Upon request all probation cases will be accepted at the clinic for physical examination regardless of eligibility. The identifying information will be supplied by the Probation Department on request. If treatment is indicated, the patient must meet eligibility qualifications.

#### 7. Determination of Eligibility.

##### A.—Investigations:

1. Investigation of eligibility to County Hospital would include a minimum:

a. A private interview with each patient or family in

### For Hernia . . .

When you refer a patient to M. J. Benjamin you are assured that a support will be carefully made according to sound principles backed by two generations of experience.

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order to secure sufficient face-sheet data with which to start the investigations.

b. Comparison of the total income with a minimum cost of living budget for a family of comparable size on a comparable professional scale.

c. Certification of income through contact with employers.

d. Verification of real and personal property.

e. Clearance of family through Central Index.

f. Communication with the patient's previous private physician regarding the willingness to release the case and his knowledge of the patient's ability to pay.

g. Bank clearance statements should be obtained in all questionable cases.

h. There shall be maintained at the County Hospital a full history of all persons admitted thereto; such history shall be kept confidential and inviolate, and solely for the use of the authorized authorities.

##### B.—Reinvestigation:

1. A reinvestigation of the patient's social and financial circumstances shall be made at least once every three months, at which time care will be continued if the patient is still eligible to receive free medical care.

a. Certain cases, *i. e.*, elderly persons, blind aid recipients, children receiving state aid, etc., may be given cards for a period of six months if desired.

2. At no time shall any patient be made to feel that any stigma is attached to the receiving of free medical care, but an effort will be made periodically to promote their independence as soon as, and whenever possible.

#### 8. Eligibility—Exceptions to.

##### A.—Workmen's Compensation:

Persons eligible for care under the Workmen's Com-

(Continued on Page 38)

## METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

### 1. The Determination of Vitamin D Activity

● About fifteen years ago it was clearly established that there could be present in certain foods or biological materials some substance which possessed antirachitic potency. Subsequently this "antirachitic factor" became known as vitamin D. Today, we know that at least ten sterol derivatives may exert antirachitic effects closely comparable to those of the originally discovered vitamin D (1).

Recognition of the existence of the antirachitic vitamin naturally stimulated investigation of methods whereby this dietary essential could be quantitatively estimated. Steady advances in knowledge of the causes and effects of rickets brought gradual improvements in these methods. Consequently, there are now available several techniques for the quantitative determination of vitamin D in foods or other biological materials.

The first and probably most widely employed method for estimation of vitamin D is by means of the so-called "line test" (2). In this technique as now employed (3), young rats are confined for 18 to 25 days to a diet conducive to development of rickets. These periods of time, with proper handling and confinement of the animals, are sufficient to induce a definitely rachitic condition. The rachitic rats are then properly grouped with respect to negative control groups to receive no supplements to the rachitic ration; positive control or reference groups to receive graded doses of some standard reference material; and "assay groups" to be given graded doses of the material under test. For the next 8 days the animals are fed daily doses of the proper supplement, either assay or reference material. No supplements are fed on the ninth and tenth days.

On the eleventh day the animals are sacrificed and either the proximal end of the tibia or the distal end of the radius or ulna dissected out, sectioned, cleaned and finally

immersed in silver nitrate solution. By double decomposition reaction, silver salts deposit where calcium is present in the metaphysis of the bone. When exposed to light these silver salts are reduced and form a dark line indicating the extent of calcium deposition. The experienced technician can estimate the degree of healing from rickets by the continuity and area of the line. By comparison of the results obtained on the various groups of animals, a quantitative expression of the antirachitic activity of the material under assay may be obtained.

A second method for evaluating vitamin D activity is that involving determination of "bone ash" (4). In this technique, final estimation of the degree of bone calcification—and thus the antirachitic potency of the substance under assay—is made by chemical analysis of specific bones of the experimental animals. A third assay method (5) is that involving roentgenological examination of certain bones. Comparisons of the bone densities of the various experimental animals serve as a basis for estimating the degree of healing from—or prevention of—rickets and hence permit determination of the vitamin D activity of the material under test.

Common foods as they naturally occur can hardly be considered as food sources of vitamin D. However, as exceptions, certain foods of marine origin (6) might be mentioned which consistently contribute small but definite amounts of the antirachitic factor to the diet. In addition, development of various means of fortifying foods with vitamin D—particularly those foods of importance in infant and child feeding—has made available other food sources of the vitamin (7). Among the many varieties of commercially canned foods will be found products of both types, which, when properly used or supplemented, should prove of value in obtaining an adequate intake of vitamin D, particularly by infants and children

## AMERICAN CAN COMPANY

230 Park Avenue, New York, N. Y.

(1) 1938. J. Am. Med. Assoc. 110, 2150.

(2) 1922. J. Biol. Chem. 51, 41.

(3) 1936. The Pharmacopoeia of the United States of America, Eleventh Decennial Revision, 482.

(4) 1923. J. Biol. Chem. 58, 71.

1924. Ibid. 61, 405.

(5) 1928. Biochem. J. 22, 135.

(6) 1938. J. Am. Med. Assoc. 111, 528.

(7) 1937. J. Am. Med. Assoc. 108, 206.

*We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-second in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.*



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There is also some constitutional upset for a few days, particularly in gall bladder cases. But this is soon over and your patient begins to show improvement and is now in condition to profit by any medication you may prescribe. If the case is an operative one, you have improved your patient and made of him a better risk.

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## SAN DIEGO COUNTY HOSPITAL: RULES OF ADMISSION

(Continued from Page 36)

pensation law must be referred to their employer. First aid care only may be given unless it is established as an emergency by the Superintendent of the County Hospital directly, or by authority granted by him to the attending staff.

### B.—Crippled children:

Crippled children eligible for care under the Social Security Act may be accepted for initial examination only, with the exception of care which is indicated that is not directly related to the respective crippling condition of each.

### C.—War veterans:

War veterans and any others eligible for governmental care shall be referred to the proper hospitals except for very minor services.

### 9. Determination of Need for Hospitalization.

A.—Necessity for hospital care shall be determined by the Superintendent of the County Hospital directly, or by authority granted by him to the attending staff.

## TRAINING OF OPTOMETRISTS

(Continued from Text Page 283)

survey of optometry, by an ophthalmologist, was done in 1936 by C. W. Rucker, M. D.<sup>5</sup> At that time he noted that there were only eight schools in this country teaching optometry, and listed them as follows:

1. The Philadelphia Optical College, three-month "personal extension course of home study," fee \$25, handsome diploma conferring degree of Doctor of Optics; fee \$50, degree of Doctor of Optometry. Graduates accepted in but few states.

2. Northern Illinois College of Optometry in Chicago, founded in 1873, over ten thousand graduates. Originally course covered three months, in 1936 extended to cover three years, degree of Doctor of Optometry.

3. Pennsylvania State College of Optometry, three-year course, degree of Doctor of Optometry.

4. Massachusetts School of Optometry, three-year course, degree of Doctor of Optometry.

5. Los Angeles School of Optometry, three-year course, degree of Doctor of Optometry.

6. Ohio State University, four-year course, degree of Bachelor of Science in Optometry.

7. Columbia University, four-year course, degree of Bachelor of Science in Optometry.

8. University of California, four-year course, degree of Bachelor of Science in Optometry.

The present higher educational standards are of recent origin and contrast markedly with the schools of optometry of the early twentieth century. The higher standards in the schools of optometry probably arise from the fact that certain universities have inaugurated a four-year course in optometry.

Ohio State, Columbia University, and the University of California all offer four-year courses leading to the degree of Bachelor of Science in Optometry. None of the universities offer the degree of Doctor of Optometry. The first two years are under the auspices of the physics departments of those universities, and the last two years are devoted to optometry.

It is notable that no medical school courses are incorporated in any of the optometry schools. According to Doctor

<sup>5</sup> Rucker, C. W., M. D.: Fitters of Spectacles, Bull. Hennepin County Med. Soc., N. S., Vol. 7, No. 9 (May 25), 1936. Minneapolis, Minn.



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Rucker's report, there were 20,000 practicing optometrists in 1936. At that time the University of Ohio State had graduated from the four-year course in optometry 144 (from 1916 to 1935); Columbia had graduated 126 (1926 to 1935); the University of California had graduated 65 (from 1925 to 1936). All 335 of these men were Bachelors of Science in Optometry, not Doctors of Optometry. They were hardly a drop in the bucket of 20,000. Doctor Rucker estimated that another 1,200, at the most, had been graduated as Doctors of Optometry from the schools numbered 2, 3, 4, and 5, making a total of 1,500 practicing optometrists of more than two years' actual training. It appears that less than 10 per cent (2,000) of the practicing optometrists (20,000) had more than two years' education in preparation for their profession.

Exact figures were not available on the number of optometrists who had been trained up to two years. Doctor Rucker estimated from his carefully obtained figures that 25 per cent of the optometrists had been trained at least two years.

What about the 15,000 doctors of optometry who had between three months' and two years' training? In the editorial mentioned above, the suggestion was made that a four-year course in a university adequately trained a man to fit glasses and measure muscle balance. If we admit that premise, only 335 optometrists in the entire country would be considered qualified by that editorial writer of the *Journal of the Connecticut State Medical Society* (335 in 1936).

Physicians have no power of determining the standards that legally allow an optometrist to practice. The majority of physicians know little about the education of an optometrist. But any physician can count up the years he spent in study and internship and ask himself how well prepared

he was in two years, or less, to specialize in any branch of medicine.

It is interesting to compare the eight schools of optometry with the ninety-four<sup>6</sup> residencies and curricular courses offered M.D.'s who wish to specialize in ophthalmology. All the fifty-seven residencies except two require previous internship, many require a general internship. That immediately takes a toll of ten years, at a minimum (including college, medical school, internship, and residency) to educate an ophthalmologist. And even then he has not done enough to meet the requirements of the American Board of Ophthalmology.

What about the 15,000 optometrists of less than two years' training? Are they competent to see eyes in the early stage of disease, and recognize that disease? The answer is no.

If the early recognition of appendicitis were entrusted to 15,000 men of such training as the optometrists, the mortality would be multiplied several times. The percentage of blindness in this country is several times higher than it would be if all people were properly examined before fitting glasses. If there are more optometrists than eye specialists in this country, in spite of there being ten times as many schools for M.D.'s as for optometrists, it must occur as the result of the limited training of optometrists.

To be sure, the trend now is to require longer education for optometrists. But at its best (four-year courses) optometry does not educate men medically. No optometrist is qualified to diagnose any disease of the eyes. Of course they attempt to diagnose and treat eye disease when they think it is present. But the sad fact is that they do not recognize disease until very late, usually not until the pa-

(Continued on Next Page)

<sup>6</sup> Bull. Amer. Acad. Ophthal. Otolaryn., Vol. 7, No. 2 (August), 1938.





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to improve the status of optometry in Connecticut. But the problem of diagnosing disease of the eye remains, and will remain until the proper medical background is demanded for all those treating the eye in any way.

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## REGISTERED DISPENSING OPTICIANS: A NEW CALIFORNIA LAW

(Continued from Text Page 283)

(c) Such other information as the Board may by rule require.

2553. If the Board, after investigation, approves such application and finds the applicant to be competent and qualified to accurately fill prescriptions for ophthalmic lenses engage in the business of dispensing optician it shall register such applicant and issue to the applicant a certificate of dispensing optician. If the Board does not so determine, it shall deny the application. A separate certificate of registration shall be required for each address where the business is to be conducted. Such certificate authorizes the applicant, its agents and employees acting therefor without further license, to engage in the business defined in Section 2550 of this code. Such certificate of registered dispensing optician shall be at all times displayed in a conspicuous place at the place of business licensed. Such certificate shall not be transferable.

2553.5. No individual, firm or corporation shall engage in the business of dispensing optician who is engaged in the manufacture or wholesale distribution to dispensing opticians or optometrists of lenses, frames, optical supplies, optometric appliances or devices or kindred products. A certificate of registration shall not be issued to any such individual, firm, or corporation. The provisions of this section shall not apply to any individual, firm, or corporation engaged in such manufacture or wholesale distribution and also engaged in the business of dispensing optician at the time this chapter becomes effective, except that any certificate of registration that may be issued to such individual, firm, or corporation, and any and all re-

(Continued on Page 42)

## TRAINING OF OPTOMETRISTS

(Continued from Preceding Page)

tient is well aware of the trouble himself. If eyesight is to be preserved against disease, and sometimes if life itself is to be preserved (intra-ocular melanomas, etc.), disease must be diagnosed as early as possible.

The general physician is responsible for the falling mortality figures in appendicitis, cancer, pneumonia, etc. His success has been due to early diagnosis. Let the family physician consider the benefits of early diagnosis of eye disease and send his patient to the eye physician or ophthalmologist, not to the optometrist. If the optometrist is capable of refracting certain types of cases, after a four-year university course, which is doubtful, the examination for disease of the eyes should be made at the same time, necessitating consultation with an ophthalmologist.<sup>7</sup>

The 1939 Connecticut legislature recently passed a bill extending to four years the required course of study as prerequisite for the practice of optometry. The Department of Health is to be congratulated upon thus helping

<sup>7</sup> Reed, Lewis L. S., Ph. D.: "Midwives, Chiropodists, and Optometrists." Pub. Com. on Costs of Med. Care No. 15. University Chicago Press, 1932.

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### REGISTERED DISPENSING OPTICIANS: A NEW CALIFORNIA LAW

(Continued from Page 40)

news thereof shall expire on December 31, 1942, and shall not be renewed thereafter.

The grinding and edging of lenses or the assembling of frames or parts thereof or the insertion of or mounting of lenses in frames shall not be construed as "manufacture" within the meaning of this section.

2554. Certificates issued under this chapter shall be valid, unless sooner suspended or revoked, for the current year in which issued and shall expire on December 31 of each year. Certificates shall be renewable upon application for renewal being made prior to January 15 of each year and the payment of a renewal fee of \$25. If application for renewal is not made by January 15, an additional fee of \$15 shall be paid on account of delinquency in renewal, but any such application for renewal must be made prior to February 15 of each year, otherwise the right to do business under the provisions of this chapter is forfeited. All fees collected under this chapter shall be paid into the contingent fund of the Board of Medical Examiners. The Board of Medical Examiners may employ, subject to civil service regulations, whatever additional clerical assistance is necessary for the administration of this chapter. All expenses incident to the operation of this chapter shall be paid from the revenue derived therefrom and no part of such expenses shall be a charge against the funds derived in connection with the functions of the Board of Medical Examiners other than that provided in this chapter.

2555. Certificates issued hereunder may, in the discretion of the Board of Medical Examiners, be suspended or revoked under the procedure of Article 13 of Chapter 5 of this division, for incompetence in filling prescriptions or any violations of the provisions of this chapter.

2556. It is unlawful to do any of the following: To advertise at a stipulated price or any variation of such a price or as being free, the furnishing of a lens, lenses, glasses or the frames and fittings thereof; to advertise any examination or treatment of the eyes in connection with the sale of eyeglasses, spectacles, or the parts thereof; to insert any statement in any advertising in connection with the business of dispensing optician which is false or tends to mislead the public; to make use of any advertising statement of a character tending to indicate to the public any superiority of any particular system or type of eyesight examination or treatment over that provided by other licensed ocular practitioners; to advertise the furnishing of, or the furnishing of, the furnishing of, or to furnish, the services of a refractionist, an optometrist, a physician and surgeon; to directly or indirectly, employ or maintain on or near the premises used for optical dispensing, a refractionist, an optometrist, a physician and surgeon, or a practitioner of any other profession for the purpose of any examination or treatment of the eyes; or to duplicate or change lenses without a prescription or order from a person duly licensed to issue the same.

2557. This chapter shall not affect any person licensed as an optometrist under Chapter 7 of Division II of this code, or any physician and surgeon licensed under Chapter 5 of Division II of this code. Such exemption shall not apply to any optometrist or physician and surgeon exclusively engaged in the business of filling prescriptions for physicians and surgeons. This chapter does not prohibit the sale of goggles, sun glasses, colored glasses, or occupational protective eye devices, if they do not have refractive values, nor do the provisions of this chapter prohibit the sale of complete ready-to-wear eyeglasses as merchandise.

(Continued on Page 44)

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## REGISTERED DISPENSING OPTICIANS: A NEW CALIFORNIA LAW

(Continued from Page 42)

2558. Any person who violates any of the provisions of this chapter is guilty of a misdemeanor and, upon conviction thereof, shall be punished by imprisonment in the county jail not less than ten days nor more than one year, or by a fine of not less than \$100 nor more than \$500, or by both such fine and imprisonment.

The Board of Medical Examiners has full power and authority to adopt rules and regulations to carry out the provisions of this chapter.

SEC. 2. If any section, subsection, sentence, clause, or phrase of this act is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this act. The Legislature hereby declares that it would have passed this act and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional.

## NURSING PRACTICE ACT—1939

(Continued from Text Page 287)

if they have the other necessary qualifications provided in this chapter, shall be eligible to apply for a license to practice nursing in this State.

2786. An accredited school of nursing is one which has been approved by the board, gives the course of instruction in nursing required by the board, covering not less than thirty-six months, and is affiliated or conducted in connection with one or more hospitals.

2787. The course of instruction shall consist of not less than the required number of hours of instruction in such

subjects as the board may from time to time determine, together with the required number of hours in the care of medical, surgical, obstetrical patients, sick children, and such other clinical experience as from time to time may be determined by the board.

2788. It shall be the duty of the board, through its executive secretary, to inspect all schools of nursing in this State at such times as the board shall deem necessary. Written reports of the executive secretary's visits shall be made to the board, which shall thereupon approve as accredited such schools of nursing as meet the requirements provided by the board.

Upon receiving the report of the executive secretary, if the board determines that any accredited school of nursing is not maintaining the standard required by the board, notice thereof in writing specifying the defect or defects shall be immediately given to the school. If the defects are not corrected within a reasonable time, the school of nursing may be removed from the accredited list and notice thereof in writing given to it.

2789. None of the provisions of this chapter shall be applicable to any school or schools conducted by any well-recognized church or denomination for the purpose of training the adherents of such church or denomination in the care of the sick in accordance with its religious tenets.

## Article 5. Penal Provisions

2795. Except as in this chapter provided, it is unlawful for any person or persons to practice or to offer to practice nursing in this State, or to use any title, sign, card or device to indicate that he is qualified to or is practicing, unless such person has been duly licensed under this chapter.

2796. It is unlawful for any person or persons not licensed as provided in this chapter to impersonate in any manner or pretend to be a professional nurse, or to use the title "registered nurse," the letters "R. N.," or the words

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"graduate nurse," "trained nurse," or any other name, word, or symbol in connection with or following his name so as to lead another or others to believe that he is a professional nurse.

2797. It is unlawful for a person to wilfully make any false representation or to impersonate any other person or permit or aid any person in any manner to impersonate him in connection with any examination or application for a license, or request to be examined or licensed.

2798. It is unlawful for anyone to conduct a school of nursing or a school for the training of persons to attend the sick, injured, infirm, or aged persons, unless the school has been approved as an accredited school by the Board of Nurse Examiners.

This section is not applicable to schools conducted in accordance with the provisions of Chapter 10 of Division II of this code, commonly known as the Trained Attendant Act, nor to schools conducted under Section 2789 of this chapter.

2799. Any person who violates any of the provisions of this chapter is guilty of a misdemeanor, and upon a conviction thereof shall be punished by imprisonment in the county jail for not less than ten days nor more than one year, or by a fine of not less than \$10 nor more than \$500, or by both such fine and imprisonment.

2800. None of the sections in this article, except Sections 2796 and 2797, shall be applicable to any person or persons specifically exempted from the general provisions of this act by Section 2731 hereof, or to schools conducted by any well-recognized church or denomination for the purpose of training the adherents of such church or denomination in the care of the sick in accordance with its religious tenets; and any adherent of any well-recognized church or denomination who engages in nursing or the care of the sick in connection with the practice of the religious

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tenets of such well-recognized church or denomination may use the word "nurse" in connection with or following his name, provided he shall not use the title "registered nurse," the letters "R. N.," the words "graduate nurse," "trained nurse," or any other name, word, or symbol in connection with or following his name so as to lead another or others to believe that he is a professional nurse licensed under the provisions of this chapter.

### Article 6. Revenue

2810. There is established in the State treasury a Board of Nurse Examiners fund of the State of California.

2811. Prior to March 1 of each year, each licensed nurse shall apply for a renewal of his license and shall pay the renewal fee required by this chapter, whereupon the board shall renew his license.

Every license not renewed will expire on the first day of March of each year, but may thereafter be renewed upon the payment of the renewal fee and such proof of the applicant's qualification to be licensed as may be required by the board.

2812. Within ten days after the beginning of each month, the board shall report to the State Controller the amount and source of all collections made under the provisions of this chapter. At the same time, all such amounts shall be paid into the State treasury, where they shall be placed to the credit of the Board of Nurse Examiners fund of the State of California.

2813. Whenever and as often as there is in the State treasury to the credit of the Board of Nurse Examiners of the State of California, funds in excess of ten thousand dollars the same shall be invested by the Department of Finance in the same manner that the funds of the State

(Continued on Next Page)



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## NURSING PRACTICE ACT—1939

(Continued from Preceding Page)

school land fund are invested and the interest upon the investment, when collected, shall be placed to the credit of the Board of Nurse Examiners fund of the State of California.

2814. All amounts paid into this fund shall be held subject to the order of the Board of Nurse Examiners to be used only for the purpose of meeting necessary expenses in the performance of the purposes of and the duties imposed by this chapter and the promotion of nursing education in this State.

Claims against the fund shall be audited by the Board of Nurse Examiners and by the Department of Finance, and shall be paid by the State Treasurer upon warrants drawn by the State Controller.

2815. The amount of the fees prescribed by this chapter in connection with the issuance of licenses under its provisions is that fixed by the following schedule:

(a) The fee to be paid upon the filing of an application by any person who is a graduate of an accredited school of nursing in the State of California, is five dollars.

(b) The fee to be paid upon the filing of an application by any other person is ten dollars.

(c) The annual fee to be paid upon the filing of an application for renewal is one dollar.

No further fee shall be required for a license or a renewal thereof other than as prescribed by this chapter.

### Article 7. Temporary Provisions

2825. Prior to March 1, 1940, persons who are not licensed under the provisions of this chapter but who do possess valid certificates in good standing as registered nurses issued by the Bureau of Registration of Nurses in the Department of Public Health of the State of California, and who otherwise possess the qualifications enumerated in Section 2702 may be appointed to the board.

2826. Notwithstanding the provisions of Sections 2732, 2795, and 2796, any person practicing nursing prior to the effective date of this chapter may continue to practice nursing until March 1, 1940, at which time he shall become subject to the provisions of the sections mentioned.

Prior to March 1, 1940, only a person holding a certificate as a registered nurse issued by the Bureau of Registration of Nurses of the Department of Public Health, or by the Board of Nurse Examiners, may use the title "registered nurse" or the letters "R. N."

2827. The chief of the Bureau of Registration of Nurses shall become the executive secretary of the Board

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of Nurse Examiners upon the effective date of this chapter and all nurse employees of the Bureau of Registration of Nurses shall become employees of the Board of Nurse Examiners.

The chief of the Bureau of Registration of Nurses and/or nurse employees of the said bureau shall upon their transfer, as hereinabove provided, retain the full civil service rights, status, and tenure which they possess at the time of said transfer.

2828. In addition to the deposits required by Section 2812, all money and investments in the State treasury to the credit of the fund for the examination and registration of nurses shall be transferred to the Board of Nurse Examiners fund of the State of California immediately upon the effective date of this chapter.

All appropriations against the fund for the examination and registration of nurses are to be paid from the Board of Nurse Examiners fund after the effective date of this chapter.

The fund for the examination and registration of nurses is abolished.

2829. The title, possession and control of all the records, books, papers, offices, equipment, and real and personal property vested in or held for the use of the Bureau of Registration of Nurses of the Department of Public Health are transferred to and vested in the Board of Nurse Examiners.

2830. Whenever a reference is made by the provisions of any statute to the certificates as registered nurses issued by the Bureau of Registration of Nurses, the State Board of Health or the Department of Public Health, the reference shall be construed as referring also to the licenses of registered nurses issued under the provisions of this chapter.

Sec. 3. If any chapter, article, section, subsection, sentence, clause or phrase of this act is for any reason held

to be unconstitutional, such decision shall not affect the validity of the remaining portions of this act. The Legislature hereby declares that it would have passed this act and each chapter, article, section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more of the chapters, articles, sections, subsections, sentences, clauses or phrases be declared unconstitutional.

## TRAINED ATTENDANT ACT

(Continued from Text Page 287)

### Article 4. Offenses Against the Chapter

4540. Any person violating any of the provisions of this chapter is guilty of a misdemeanor and shall, upon conviction, be liable to a fine of not less than ten dollars nor more than one hundred dollars for the first offense, and not less than twenty dollars nor more than two hundred dollars for each subsequent offense.

4541. Any person who willfully makes any false representation or who impersonates any other person or permits or aids in any manner any person to impersonate him in connection with any examination or application, is guilty of a misdemeanor.

4542. Unless authorized by this chapter, it is unlawful for any person to advertise as, or assume the title of trained attendant, or to use after his name the words "trained attendant" or any other words, letters or figures to indicate that the person using the same is a trained attendant, or to impersonate in any manner or pretend to be a trained attendant.

### Article 5. Revenue

4550. All accounts, collections and fines made under the provisions of this chapter shall be paid into the State (Continued on Next Page)



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#### TRAINED ATTENDANT ACT

(Continued from Preceding Page)

treasury and shall be placed to the credit of the traveling and contingent fund of the department of public health.

4551. The examination fee for all applicants is five dollars. In no case will the examination fee be returned to the applicant.

Sec. 2. Section 30007 is hereby added to Division XXX of the Business and Professions Code to read as follows:

30007. An act entitled, "An act to promote the better education of trained attendants and the better care of the sick in the State of California; to provide for and regulate the examination and licensure of trained attendants; to provide for the issuance of licenses as trained attendants to qualified applicants by the State Board of Health; to provide that the State Board of Health shall enforce the provisions hereof; to provide penalties for the violation of any of the provisions hereof and to repeal all acts and parts of acts inconsistent with the provisions of this act," approved May 2, 1919, together with all acts amendatory thereof and supplementary thereto, are hereby repealed.

Sec. 3. This act shall become effective if a Business and Professions Code is enacted by the fifty-second Legislature.

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**Sulfanilamide Found to Have Tendency to Slow Normal Healing of Wounds.**—Sulfanilamide tends to slow the normal healing of wounds, and its use to prevent infection following operation may, therefore, prove to be unwise, it is indicated by experiments reported in *The Journal of the American Medical Association*.

The experimenters, Eugene M. Bricker, M. D., and Evarts A. Graham, M. D., St. Louis, performed their studies on dogs, giving the drug to some and withholding it from others. For about five days the wounds of dogs given the drug healed less slowly and were less strong than those of dogs not receiving treatment.

By the seventh day after operation the wounds of both treated and untreated dogs were almost equal in healing and strength.

Explaining the reasons for the experiments, the physicians state: "The enthusiasm with which sulfanilamide is being used in the treatment of infections of all kinds has tended to minimize a consideration of the possibility of any harmful effects of the drugs. Recently the idea has been expressed by many that it might be used prophylactically before certain operations in which the chance of wound infection may be great. It seemed desirable, therefore, to determine whether or not this drug has any inhibitory effect on wound healing, especially since antiseptics as a group do have such an effect."

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The report of Barker and Hummel (Bulletin of the Johns Hopkins Hospital, April 1939), showing that the administration of autolyzed yeast (Vegex) causes an increase in red cells and hemoglobin in macrocytic anemias, confirms the results of Sturgis (Annals of Internal Medicine, February 1939) and of Groen and Snapper (American Journ. of Medical Sciences, May

1937). Castle and Rhoads (Lancet, July 6, 1932), reporting on pernicious anemia, found that autolyzed yeast (Vegex) interacts with human gastric juice to increase the red blood cell count and reticulocytes.

Goodall (Lancet, October 8, 1932) reported eight cases of long standing pernicious anemia, treated only with Marmite (Vegex) for not less than seven months. The average red cell count at the beginning of the treatment was 1,500,000 and at the last observation was 5,050,000. The average hemoglobin was 37 per cent at the beginning and 94 per cent at the time of the last observation.

Such clinical data seem to establish dependably the potency of Vegex as a source of extrinsic factor, and its value in blood regeneration.

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Strauss and Castle, reporting on "The Extrinsic (Deficiency) Factor in Pernicious and Related Anemias" (Lancet, July 16, 1932), stated that *autoclaved* Vegex was without influence upon the blood formation but when administered with normal human gastric juice "a prompt and characteristic reticulocyte response followed." Strauss and Castle attributed this result to the extrinsic factor in the preparation used.

West, in his report (Journal of the American Medical Association, August 10, 1935), said:

*"That Cassel's yeast preparation (Vegex) contained the extrinsic factor is clear, and the observation of Wills on tropical macrocytic anemias, in which the intrinsic factor is presumably present and the extrinsic factor lacking in the diet, confirm this."*

Workers in the anemias report using from three to eight teaspoonfuls daily, administered in doses of a scant teaspoonful to a cup of water—hot or chilled, if desired—in milk, soups and vegetables. Vegex has a meatlike flavor—entirely meat free—characteristic of autolyzed yeast proteins, giving wide food use in the diet.

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Sodium Chloride.....	11.1
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Potassium as K.....	2.18
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# CALIFORNIA AND WESTERN MEDICINE

*Official Journal of the California Medical Association*  
FOUR FIFTY SUTTER, ROOM 2004, SAN FRANCISCO

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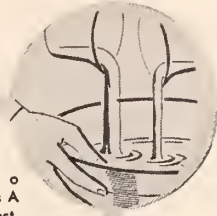


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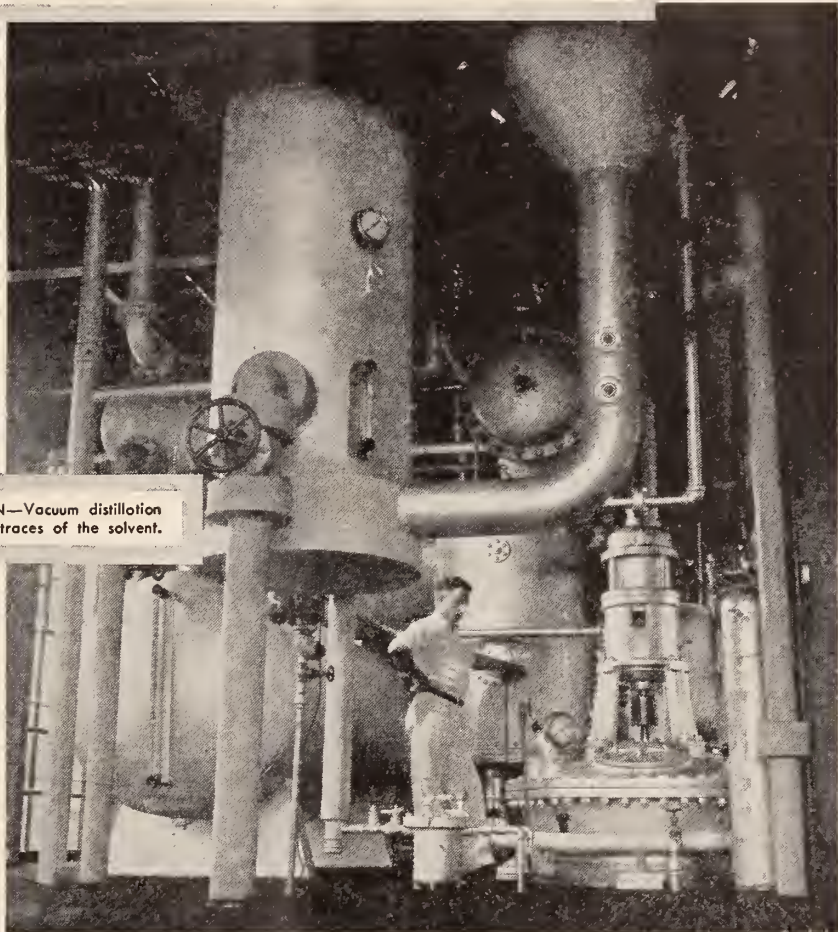


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President-Elect—Harry H. Wilson, 1919 Wilshire Boulevard, Los Angeles.	Chairman of Executive Committee—Philip K. Gilman, 2000 Van Ness Avenue, San Francisco.	Editor—George H. Kress, 450 Sutter Street, Room 2004, San Francisco.
Speaker of House of Delegates—Lowell S. Goin, 414 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.	Chairman of the Committee on Public Relations—George G. Reinle, 532 Fifteenth Street, Oakland.	General Counsel—Hartley F. Peart, Room 1800, 111 Sutter Street, San Francisco.
Vice-Speaker of House of Delegates—Dewey R. Powell, 501 Medico-Dental Building, 242 North Sutter Street, Stockton.	Past-President—William W. Roblee, 202 Mission Inn Rotunda, Riverside.	Associate General Counsel—Hubert T. Morrow, Van Nuys Building, 210 West Seventh Street, Los Angeles.
Chairman of Council—Karl L. Schaupp, 490 Post Street, San Francisco.		

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(In addition to the elected district and at-large Councilors, the Council has as ex officio members, the general officers and the Chairman of the Committee on Public Relations. Chairman of Council, Karl L. Schaupp; Secretary, George H. Kress.)

District Councilors			Councilors-at-Large		
First District—Imperial, Orange, Riverside, San Bernardino and San Diego Counties, Calvert L. Emmons (1941), 206 Emmons Building, Ontario.	Fifth District—Monterey, San Benito, San Mateo, Santa Clara and Santa Cruz Counties, C. Kelly Canelo (1942), 505 Medico-Dental Building, San Jose.		C. O. Tanner (1942), 3255 Fourth Street, San Diego.		
Second District—Los Angeles, Inyo and Mono Counties, George D. Maner (1942), 657 South Westlake Avenue, Los Angeles.	Sixth District—San Francisco County, Karl L. Schaupp (1940), 530 Medico-Dental Building, 490 Post Street, San Francisco.		William H. Kiger (1940), 911 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.		
Third District—Kern, San Luis Obispo, Santa Barbara and Ventura Counties, Louis A. Packard (1940), 563 Haberfelde Building, Bakersfield.	Seventh District—Alameda and Contra Costa Counties, Oliver D. Hamlin (1941), 389 Thirtieth Street, Oakland.		Philip K. Gilman (1941), 2000 Van Ness Avenue, San Francisco.		
Fourth District—Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare and Tuolumne Counties, Axel E. Anderson (1940), Medical Group Building, 1759 Fulton Street, Fresno.	Eighth District—Alpine, Amador, Butte, Colusa, Eldorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, Yolo and Yuba Counties, Frank A. MacDonald (1942), 822 Medico-Dental Building, 1127 Eleventh Street, Sacramento.		E. Earl Moody (1941), 829 South Alvarado Street, Los Angeles.		
	Ninth District—Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Siskiyou, So-		Elbridge J. Best (1942), 384 Post Street, San Francisco.		
	lano, Sonoma and Trinity Counties, Henry S. Rogers (1940), 200 Fourth Street, Petaluma.		Frederick N. Scatena (1940), Medico-Dental Building, 1127 Eleventh Street, Sacramento.		

## Standing Committees

Executive Committee			Committee on Publications		
The President, the President-elect, the Speaker of the House of Delegates, the Chairman of the Council, the Chairman of the Auditing Committee, the Chairman of the Committee on Public Relations, the Past President, the Secretary-Treasurer, and the Editor. (Philip K. Gilman, chairman; George H. Kress, secretary.)			Ralph B. Eusden (Chairman).....Long Beach	1940	
			Ruggles A. Cushman.....Talmage	1941	
			Francis E. Toomey.....San Diego	1942	
			Secretary ex officio		
			Editor ex officio		
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O. D. Hamlin.....Oakland	1940		Junius B. Harris (Chairman).....Sacramento	1941	
Elbridge J. Best.....San Francisco	1940		T. Henshaw Kelly.....San Francisco	1942	
Members of the Auditing Committee are appointed each year by the Chairman of the Council.			President ex officio		
			President-Elect ex officio		
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Edwin L. Bruck.....San Francisco	1941		J. Homer Woolsey.....Woodland	1941	
Willard H. Newman.....San Diego	1942		Howard F. West.....Los Angeles	1942	
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Benjamin W. Black.....Oakland	1940		Frederick S. Foote, Secretary of Section on General Surgery, ex officio		
Roy E. Thomas (Chairman).....Los Angeles	1941		George H. Kress, Secretary of California Medical Association, (Chairman) ex officio		
William Dock.....San Francisco	1942		Committee on Public Relations		
Committee on History and Obituaries			The Committee on Public Relations consists of the chairmen of the following standing committees and of certain general officers of the Association, all serving ex officio. The chairman of the committee is George G. Reinle, the secretary is George H. Kress. The director of the Department of Public Relations is George H. Kress. The chairman of the Committee on Public Relations is ex officio a member of the Council.		
A. Elmer Belt.....Los Angeles	1940		Roy E. Thomas.....Chair., Com. on Health and Public Instruction		
Frank R. Makinson (Chairman).....Oakland	1941		J. Norman O'Neill.....Chair., Com. on Hospitals, Dispensaries, Clinics		
J. Marion Read.....San Francisco	1942		Donald Cass.....Chair., Com. on Industrial Practice		
Secretary ex officio			George G. Reinle.....Chair., Com. on Medical Defense		
Editor ex officio			George D. Maner.....Chair., Com. on Membership and Organization		
Committee on Hospitals, Dispensaries and Clinics			John H. Graves.....Chair., Com. on Medical Economics		
Karl L. Schaupp.....San Francisco	1940		Junius B. Harris.....Chair., Com. on Public Policy and Legislation		
George I. Dawson.....Napa	1941		Alson R. Kilgore.....Chair., Cancer Commission		
J. Norman O'Neill (Chairman).....Los Angeles	1942		Dwight L. Wilbur.....Chair., Com. on Postgraduate Activities		
Committee on Industrial Practice			Charles A. Dukes.....President of California Medical Association		
Harry E. Zaiser.....Orange	1940		Harry H. Wilson.....President-elect		
Morton R. Gibbons.....San Francisco	1941		George H. Kress.....Secretary-Treasurer		
Donald Cass (Chairman).....Los Angeles	1942		Communications for the Public Relations Department should be addressed to the Director, George H. Kress, M. D., Room 2004, 450 Sutter Street, San Francisco.		
Committee on Medical Defense			Cancer Commission		
John P. Nuttall.....Santa Monica	1940		Charles A. Dukes.....Oakland	1940	
George G. Reinle (Chairman).....Oakland	1941		Lyell C. Kinney (Vice-Chairman).....San Diego	1940	
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Committee on Medical Economics			Orville N. Meland (Sec. for Southern Section).....Los Angeles	1941	
Edward M. Palette, Sr.....Los Angeles	1940		A. Herman Zeiler.....Los Angeles	1941	
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L. W. Hines.....Santa Rosa	1942		Clarence J. Berne.....Los Angeles	1942	
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John B. Doyle.....Los Angeles	1940		Henry J. Ullmann.....Santa Barbara	1942	
B. O. Raulston.....Los Angeles	1941		Communications for the Cancer Commission should be addressed to the Secretary, Otto H. Pfueger, M. D., Room 2004, 450 Sutter Street, San Francisco.		
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Committee on Postgraduate Activities			Committee on Postgraduate Activities		
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F. E. Clough.....San Bernardino	1941		H. E. Henderson.....Santa Barbara	1942	
H. E. Henderson.....Santa Barbara	1942		Secretary ex officio		

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# ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to promptly notify "California and Western Medicine" when changes are indicated in their roster information.)

**Alameda County Medical Association**  
2404 Broadway, Oakland  
President, Frank H. Bowles, 426 Seventeenth Street, Oakland.  
Secretary, Gertrude Moore, 2404 Broadway, Oakland.  
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

**Butte County Medical Society**  
President, E. L. Meyers, Fourth Street and Broadway, Chico.  
Secretary, J. O. Chiapella, 131 Broadway, Chico.  
Meeting, *Second Thursday.*

**Contra Costa County Medical Society**  
President, Kaho Daily, 314 Tenth Street, Richmond.  
Secretary, Clifford E. Dietderich, 1306 Pomona Avenue, Crockett.  
Meeting, *Second Tuesday, 8 p. m.*

**Fresno County Medical Society**  
President, Roland W. Dahlgren, 1006 Mattei Building, Fresno.  
Secretary, Lester R. Nielson, 1006 Mattei Bldg., Fresno.  
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

**Humboldt County Medical Society**  
President, Samuel P. Burre, 507 F Street, Eureka.  
Secretary, Joseph S. Woolford, 350 E Street, Eureka.  
Meeting, *First Thursday.*

**Imperial County Medical Society**  
President, Henry B. Graeser, 115 E. Fifth Street, Holtville.  
Secretary, William A. Clarke, Holtville.  
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

**Inyo-Mono County Medical Society**  
President, Lloyd S. Bambauer, 705 Home Street, Bishop.  
Secretary, Selda E. Anthony, 303 No. Edwards, Independence.  
Meeting, *Fourth Wednesday, Methodist Church, Bishop, except December, January, February.*

**Kern County Medical Society**  
President, C. I. Mead, Habersfelde Building, Bakersfield.  
Secretary, C. S. Compton, 428 C Street, Bakersfield.  
Meeting, *Third Thursday, 8:00 p. m.*

**Kings County Medical Society**  
President, P. K. Edmunds, Corcoran.  
Secretary, William A. Johnstone, Hanford.  
Meeting, *Second Monday, 8 p. m., Legion Hall, Hanford.*

**Lassen-Plumas-Modoc County Medical Society**  
President, C. I. Burnett, Susanville.  
Secretary, Fred J. Davis, Jr., 920 Pine Street, Susanville.  
Meeting, *On Call.*

**Los Angeles County Medical Association**  
1925 Wilshire Boulevard, Los Angeles  
President, William H. Daniel, 1930 Wilshire Boulevard, Los Angeles.  
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.  
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

**Marin County Medical Society**  
President, Harry N. Hensler, Home Market Building, San Anselmo.  
Secretary, Carl W. Clark, 510 B Street, San Rafael.  
Meeting, *Fourth Thursday, 7:00 p. m., Marin Golf and Country Club.*

**Mendocino-Lake County Medical Society**  
President, Robert B. Smalley, Willits.  
Secretary, Dallas Wagner, Fort Bragg.  
Meeting, *On Call.*

**Merced County Medical Society**  
President, E. M. Soderstrom, Merced.  
Secretary, Fred O. Lien, Shaffer Building, Merced.  
Meeting, *Third Thursday, Hotel Tioga, Merced.*

**Monterey County Medical Society**  
President, Walter P. Farr, 308 Main Street, Salinas.  
Secretary, Herbert Archibald, Salinas National Bank Building, Salinas.  
Meeting, *First Thursday.*

**Napa County Medical Society**  
President, Alexander H. McLeish, Veterans Home Hospital, Yountville.  
Secretary, M. M. Booth, Bruck Building, St. Helena.  
Meeting, *First Wednesday.*

**Orange County Medical Society**  
President, M. W. Hollingsworth, 1806 No. Main Street, Santa Ana.  
Secretary, Glenn Curtis, 323 North Pomona Street, Brea.  
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital Orange.*

**Placer County Medical Society**  
President, William M. Miller, Auburn.  
Secretary, Robert A. Peers, Colfax.  
Meeting, *At Call of President.*

**Riverside County Medical Society**  
President, N. K. Bear, 3655 Fourteenth Street, Riverside.  
Secretary, Thomas A. Card, 3616 Main Street, Riverside.  
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

**Sacramento Society for Medical Improvement**  
President, Manuel Azevedo, 1027 Tenth Street, Sacramento.  
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.  
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

**San Benito County Medical Society**  
President, J. M. O'Donnell, Hollister.  
Secretary, L. E. Smith, Hollister.  
Meeting, *At Call of President.*

**San Bernardino County Medical Society**  
President, Delbert B. Williams, 1151 D Street, San Bernardino.  
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.  
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

**San Diego County Medical Society**  
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego  
President, Hall G. Holder, 1109 Medico-Dental Building, San Diego.  
Secretary, C. V. Bernardini, Medico-Dental Building, 233 A Street, San Diego.  
Meeting, *Second Tuesday, El Cortez Hotel.*

**San Francisco County Medical Society**  
2180 Washington Street, San Francisco  
President, Edwin L. Bruck, 384 Post Street, San Francisco.  
Secretary, L. Henry Garland, 2180 Washington Street, San Francisco.  
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

**San Joaquin County Medical Society**  
President, N. P. Johnson, Medico-Dental Building, Stockton.  
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.  
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

**San Luis Obispo County Medical Society**  
President, J. B. V. Butler, 722 Marsh Street, San Luis Obispo.  
Secretary, E. M. Bingham, County Health Department, San Luis Obispo.  
Meeting, *Third Saturday, 6:30 p. m., Gold Dragon Cafe, San Luis Obispo.*

**San Mateo County Medical Society**  
President, N. D. Morrison, 205 Third Avenue, San Mateo.  
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.  
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

**Santa Barbara County Medical Society**  
President, W. H. Johnston, 1515 State Street, Santa Barbara.  
Secretary, D. H. McNamara, 317 W. Pueblo Street, Santa Barbara.  
Meeting, *Second Monday, Cottage Hospital.*

**Santa Clara County Medical Society**  
President, Cletus S. Sullivan, Bank of America Building, San Jose.  
Secretary, Leslie B. Magoon, 652 East Santa Clara Street, San Jose.  
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

**Santa Cruz County Medical Society**  
President, John T. Harrington, 10 Cooper Street, Santa Cruz.  
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.  
Meeting, *First Monday, 7:30 p. m., Club Rio del Mar, Aptos.*

**Shasta County Medical Society**  
President, B. F. Saylor, Redding.  
Secretary, Morton J. Murphy, 1542 Market Street, Redding.  
Meeting, *Second Monday.*

**Siskiyou County Medical Society**  
President, J. B. McGuire, Mt. Shasta.  
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.  
Meeting, *Sunday on call.*

**Solano County Medical Society**  
President, Ream S. Leachman, 727 Sonoma Street, Vallejo.  
Secretary, John W. Green, Box 539, Vallejo.  
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

**Sonoma County Medical Society**  
President, D. C. Oakleaf, 301A West Street, Healdsburg.  
Secretary, T. E. Albers, 600 B Street, Santa Rosa.  
Meeting, *Second Thursday.*

**Stanislaus County Medical Society**  
President, John A. Cooper, 1024 J Street, Modesto.  
Secretary, Hoyt R. Gant, 403 Beaty Building, Modesto.  
Meeting, *Second Friday, 7:30 p. m., Hotel Hughson.*

**Tehama County Medical Society**  
President, O. T. Wood, Red Bluff.  
Secretary, R. G. Frey, Red Bluff.  
Meeting, *At Call of President.*

**Tulare County Medical Society**  
President, Newton Miller, 231 No. Main Street, Porterville.  
Secretary, Ray Cronemiller, Exeter.  
Meeting, *Sunday Evening once a month.*

**Ventura County Medical Society**  
President, W. F. Mosher, 34 No. Ash Street, Ventura.  
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.  
Meeting, *Second Tuesday, Ventura County Country Club.*

**Yolo-Colusa-Glenn County Medical Society**  
President, H. G. Potter, Winters.  
Secretary, W. J. Blevins, Jr., Woodland.  
Meeting, *First Tuesday.*

**Yuba-Sutter County Medical Society**  
President, P. E. Thunen, I. O. O. F. Building, Marysville.  
Secretary, Leon M. Swift, I. O. O. F. Building, Marysville.  
Meeting, *First Tuesday.*

(Roster lists continued on advertising page 6)

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**More Care Should Be Taken in Deciding Causes of Cerebral Hemorrhage.**—More attention should be paid to determining whether cerebral hemorrhage of the newborn is due to injury sustained during delivery or to cerebral maldevelopment or degeneration, M. Hines Roberts, M. D., of Atlanta, Georgia, suggests in *The Journal of the American Medical Association*.

In many instances in which cerebral spasms (which often produce violent, involuntary contractions of muscles) due to cerebral hemorrhage or other cerebral lesions are attributed to birth injury, Doctor Roberts states, the diagnosis is based merely on certain physical and mental disturbances which are commonly recognized as the probable results of intracranial injury. Careful study of these persons by a neurologist and neurosurgeon may reveal data indicating the disease is not the result of injury, but probably of cerebral maldevelopment or degeneration, either during the prenatal stage or during early childhood.

Doctor Roberts found only nine typical cases of cerebral spasm among a group of sixty-six children surviving cerebral hemorrhage due to injury at birth, whom he followed up for an average of five and a half years. Four others showed only some definite motor disturbance, but could not be classified as typical instances of cerebral spasm.

Emphasizing the scarcity of adequate studies on the significance of cerebral birth injury in its relation to the child's physical and mental development, the author indicated that only when careful diagnosis is made at birth and follow-up studies are made by the same investigator over a period of at least ten years can the problem be properly attacked.

The children in his series were followed for periods varying from ten months to fifteen years. While forty, or 60 per cent, seem perfectly normal at present, Doctor Roberts points out, those observed for only a year or two may yet show disturbances. However, certainly 50 per cent will continue to be normal.

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### Nevada State Medical Association

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### Miscellaneous California Medical Organizations

<b>California Northern District Medical Society</b> President—John H. White, Chico. Secretary—J. Homer Woolsey, Woodland Clinic, Woodland.	President, Howard Morrow, San Francisco. Director, Walter M. Dickie, State Building, San Francisco.	<b>Southern California Medical Association</b> President, John C. Ruddock, 1930 Wilshire Boulevard, Los Angeles. Secretary, John B. Doyle, 501 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.
<b>Department of Public Health of the State of California</b> San Francisco—State Office Building, McAllister and Larkin streets, UNDERBILL 8700. Sacramento—State Office Building, Tenth and L streets, Capital 2800. Los Angeles—State Office Building, 217 West First Street, Madison 1281.	<b>Board of Medical Examiners of the State of California</b> San Francisco, Room 214, 515 Van Ness Avenue. Los Angeles, 906 State Building. Sacramento, 420 State Office Building. President, William R. Molony, Sr., Los Angeles. Secretary, C. B. Pinkham, Room 214, 515 Van Ness Avenue, San Francisco.	<b>The Public Health League of California</b> Executive Secretary, Ben H. Read, San Francisco office, 244 Kearny Street, phone SUTTER 8470. Los Angeles office, Room 563, 1151 South Broadway, phone PROSPECT 5711.

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\*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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MANAGER

## PARK SANITARIUM 1500 PAGE ST.

SAN FRANCISCO.

**Psychiatry Needs Coöperation of the General Practitioner.**—Closer coöperation and collaboration between the general practice of medicine and psychiatry will bring about not only a more practical understanding of the possibilities of the latter, but also benefits to the patient from both branches, John D. Campbell, M. D., New York, declares in *The Journal of the American Medical Association*.

Pointing out the lack of understanding which has arisen between psychiatry and other branches of medicine, Doctor Campbell urges coöperation among general physicians, specialists, and research workers in the further development of this branch. Misunderstanding, he says, has arisen partly from the fact that psychiatry is a new branch, that there are several schools of thought, and that the average physician does not have the time to investigate them for himself. The wise psychiatrist, however, is aware of all these schools of thought and applies them according to the case in hand.

"Today as always," he says, "one of the most important problems to both the psychiatrist and the general physician is that of psychoneurosis. The physician who has been trained in cellular pathology and bacteriology finds it difficult to understand the psychoneurotic patient in the light of this training. He must learn to analyze the neurotic symptom. It is an actual disturbance dependent on changes in three definite and important systems of the human body."

Some writers, Doctor Campbell observes, have aptly compared the neurotic symptom to a referred pain. Just as a stomach pain may be a symptom of appendicitis, so may the neurotic pain be an outward manifestation of a repressed painful thought.

"It is erroneously supposed," he continues, "that the neurotic individual could prevent or forget his symptoms if he only cared to do so. The neurotic symptom is itself a by-product of a sincere attempt to overcome a more serious

(Continued on Next Page)

## Cook County Graduate School of Medicine

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**OBSTETRICS**—Two Weeks Course April 29, 1940. Informal Course every week.

**OTOLARYNGOLOGY**—Two Weeks Course starting April 8, 1940. Informal Course every week.

**OPHTHALMOLOGY**—Two Weeks Course starting April 22, 1940. Informal Course every week.

**CYSTOSCOPY**—Ten Day Practical Course rotary every two weeks. One Month and Two Weeks Courses in Urology every two weeks.

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## HOSPITALS AND SANATORIUMS

The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

<b>ALEXANDER SANITARIUM</b> Nervous and Mental Diseases Belmont, California	<b>COMPTON SANATORIUM AND LAS CAMPANAS HOSPITAL</b> Neuropsychiatric and General Compton, California	<b>POTTENGER SANATORIUM AND CLINIC</b> For the Treatment of Tuberculosis Monrovia, California
<b>ALUM ROCK SANATORIUM</b> For Treatment of Diseases of the Chest San Jose, California	<b>FRANKLIN HOSPITAL</b> Limited General Hospital Fourteenth and Noe Streets, San Francisco	<b>PARK SANITARIUM</b> Mental and Nervous Alcoholic and Drug Addictions 1500 Page Street, San Francisco, California
<b>CALIFORNIA SANITARIUM</b> For Treatment of Tuberculosis Belmont, California	<b>FRENCH HOSPITAL</b> General Hospital Geary at Fifth Avenue, San Francisco	<b>SAINT FRANCIS HOSPITAL</b> Limited General Hospital Bush and Hyde Streets, San Francisco
<b>CANYON SANATORIUM</b> For Treatment of Tuberculosis Redwood City, California	<b>GREENS' EYE HOSPITAL</b> Consultation, Diagnosis and Treatment of Diseases of the Eye Bush and Octavia Streets, San Francisco	<b>ST. LUKE'S HOSPITAL</b> Limited General Hospital 27th and Valencia Streets, San Francisco
<b>COLFAX SCHOOL FOR THE TUBERCULOUS</b> For the Treatment of Tuberculosis Colfax, California	<b>LAS ENCINAS SANITARIUM</b> Nervous and General Diseases Las Encinas, Pasadena, California	<b>ST. MARY'S HOSPITAL</b> General Hospital 2200 Hayes Street, San Francisco
	<b>LIVERMORE SANITARIUM</b> Nervous and General Diseases Livermore, California	<b>TWIN PINES</b> Convalescent and Neuropsychiatric Belmont, California

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*Internal Medicine*

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*The Persian Room*  
Where You Will Dine and Dance to World-Famous Bands

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**HOTEL SIR FRANCIS DRAKE**  
*When You Come to San Francisco*

A home of distinction.... A quietly luxurious atmosphere when you want to rest.... Glamorous diversion when you want to be entertained.... A central location when you have business or sight-seeing to do.

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**HOTEL SIR FRANCIS DRAKE**  
POWELL AT SUTTER HILTON Operated GARAGE IN BUILDING  
DON B. BURGER MANAGER

(Continued from Preceding Page)

problem. It is a substitution, a replacement of a formidable difficulty by a simpler one. The patient is finally able to effect a compensation, so that when the physician is confronted with a simple neurotic symptom he should visualize the agonizing battle which occurred within that patient before the symptom was evolved."

Psycho-analysis is based on Freud's idea that painful ideas and unacceptable wishes, from early childhood, are repressed into the unconscious mind and later make their appearance transformed into outward manifestations which are called neurotic symptoms.

"Freud stated that his theory was not incompatible with an organic or physiologic explanation," Doctor Campbell observes. "Unfortunately, we have too many enthusiasts who blindly study the Freudian mechanisms without trying to find a physiologic explanation for them. Tendencies today are pointing again toward research in chemistry, physiology, and endocrinology for an explanation of the neurosis.

"Certain enthusiasts, some of whom were poorly adjusted themselves, have connected psycho-analysis with sex perversion and voodooism, causing the scientific medical man to beware of its influence. Today, however, Freud's teachings are becoming settled to their practical application. Our best analysts recognize and speak of its limitations, but all psychiatrists feel indebted to psycho-analysis not only as a method of treatment, but as a school of psychology.

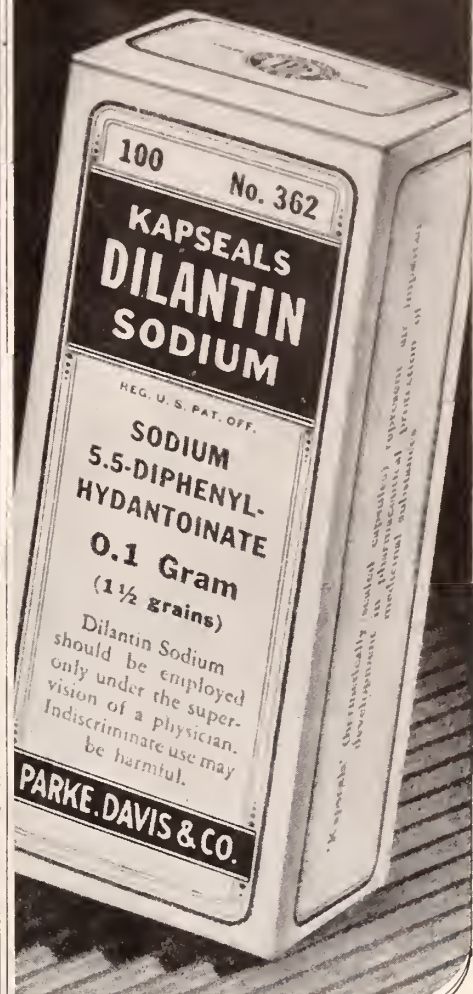
"Psycho-analysis of the family should be of particular interest to the general physician. He is in an ideal position to observe a family over a period of years. The family physician, who has insight into important relationships, is in a position perhaps to save a susceptible child from a miserable life of neuroticism."

AN ANTICONVULSANT FOR THE TREATMENT OF EPILEPSY

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**D**ILANTIN SODIUM (sodium 5,5-diphenylhydantoinate), an anticonvulsant with little or no hypnotic effect, is supplied for the treatment of epileptics not responsive to other medication. Extensive clinical use indicates that Dilantin Sodium will prevent, or greatly decrease the frequency and severity of, convulsive seizures in a majority of epileptics. However, since the significance of observed reactions to Dilantin Sodium is not fully established, patients receiving the drug should be closely observed.

Dilantin Sodium is accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies.



\* The name 'Dilantin' Sodium designates the sodium salt of diphenyl hydantoin. 'Dilantin' Sodium was formerly known as 'Dilantin,' a term now designating the basic substance, diphenyl hydantoin. Dilantin Sodium is available as 0.1 Gram (1½-grains) and 0.03 Gram (½-grain) Kapseals, in bottles of 100, 500 and 1000.

**PARKE, DAVIS & COMPANY - Detroit, Michigan**  
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## BOOK REVIEWS

### BOOKS RECEIVED

**Gynecologic Operations and Their Topographic-Anatomic Fundamentals.** By Prof. Dr. Med. Heinrich Martius, Director of the University Women's Clinic, Göttingen. Authorized English Translation under the editorial supervision of W. A. Newman Dorland, A. M., M. D., F. A. C. S., Formerly Professor of Obstetrics, Loyola University School of Medicine, Diplomate of the American Board of Obstetrics and Gynecology, etc. Cloth. Pp. 486, with 404 mostly colored illustrations. Price, \$10. Chicago: S. B. Debour, Publishers, 1939.

**Anesthesia: Narcosis, Local, Regional, Spinal.** By A. M. Dogliotti, M. D., Professor of Surgery, University of Modena. Authorized English Translation by Carlo S. Scuderi, M. S., M. D., F. A. C. S., Associate in Surgery, University of Illinois, College of Medicine. Cloth. Pp. 680, with 17 tables and 236 illustrations partly in colors. Price, \$7.50. Chicago: S. B. Debour, Publishers, 1939.

**The Story of Surgery.** By Harvey Graham. With a Foreword by Oliver St. John Gogarty. Cloth. Pp. 425. Price, \$3.75. New York: Doubleday, Doran & Company, 1939.

**A Textbook of Occupational Diseases of the Skin.** By Louis Schwartz, M. D., Medical Director, United States Public Health Service, in charge of Dermatoses Investigations, Washington, D. C.; Lecturer, Department of Dermatology and Syphilology, New York University, College of Medicine; Fellow, American Public Health Association; Chairman, Committee on Skin Irritants, American Public Health Association, and Louis Tulipan, M. D., Clinical Professor of Dermatology and Syphilology, New York University, College of Medicine, New York City; Consulting Dermatologist, Manhattan General Hospital; Associate Visiting Dermatologist and Syphilologist to Bellevue Hospital; Diplomate of American Board of Dermatology and Syphilology; Fellow, American Academy of Dermatology and Syphilology. Cloth. Pp. 799, illustrated with 116 photographs. Price, \$10. Philadelphia: Lea & Febiger, 1939.

**Atlas of Surgical Operations.** By Elliott C. Cutler, Moseley Professor of Surgery, Harvard University and Chief Surgeon of the Peter Bent Brigham Hospital; Formerly Professor of Surgery, Western Reserve University, and Director of Surgery of the Lakeside Hospital, and Robert Zollinger, Assistant Professor of Surgery, Harvard University and Senior Associate in Surgery at the Peter Bent Brigham Hospital. Cloth. Pp. 180. Illustrated by Mildred B. Coddington. Price, \$8. New York: The Macmillan Company, 1939.

**Primer of Allergy.** A Guidebook for those who must find their way through the mazes of this strange and tantalizing state. By Warren T. Vaughan, M. D., Richmond, Virginia. With illustrations by John P. Tillery. Cloth. Pp. 140. Price, \$1.50. St. Louis: The C. V. Mosby Company, 1939.

**Hospital Public Relations.** By Alden B. Mills. Cloth. Pp. 384, with 16 full-page illustrations. Price, \$3.75. Chicago: Physicians' Record Company, 1939.

**The Health Insurance Doctor.** His Rôle in Great Britain, Denmark and France. By Barbara N. Armstrong. Cloth. Pp. 264. Price, \$3. Princeton: Princeton University Press, 1939.

**The Rockefeller Foundation.** International Health Division, Annual Report, 1938. Paper. Pp. 233. New York: The Rockefeller Foundation, 1939.

(Continued on Next Page)



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## BOOKS RECEIVED

(Continued from Preceding Page)

**Essentials of Medical Electricity.** By Elkin P. Cumberbatch, M. A., B. M. (Oxon.), D. M. R. E. (Camb.), F. R. C. P., Medical Officer in Charge, Electrical Department, and Lecturer on Medical Electricity, St. Bartholomew's Hospital; Examiner in Medical Electrolgy, University of Cambridge; Former President, Section of Electrotherapeutics, Royal Society of Medicine. Eighth Edition, Revised and Enlarged. Cloth. Pp. 528, with 15 plates and 147 illustrations. Price, \$5, plus postage. Cleveland: The Sherwood Press, 1939.

**An Introduction to Medical Mycology.** By George M. Lewis, M. D., Member of the American Dermatological Association, Inc.; Fellow of the American College of Physicians, of the American Medical Association and of the New York Academy of Medicine; Member of the Manhattan Dermatological Society; Associate and Assistant Attending Dermatologist, New York Post-Graduate Medical School and Hospital, Columbia University; Instructor in Medicine (Dermatology), Cornell University; Attending Dermatologist to St. Clare's Hospital; etc., and Mary E. Hopper, M. S., Assistant in Mycology, Skin and Cancer Unit, New York Post-Graduate School and Hospital, Columbia University. Cloth. Pp. 333, with 71 full-page plates. Price, \$5.50, postpaid. Chicago: The Year Book Publishers, Inc., 1939.

**A Topographic Atlas for X-Ray Therapy.** By Ira I. Kaplan, B. S., M. D., Director, Radiation Therapy Department, Bellevue Hospital; Director, Division of Cancer, Department of Hospitals, City of New York; Clinical Professor of Surgery, New York University Medical College; Associate Visiting Radiologist, Lenox Hill Hospital, New York City; Editor of "Therapeutics" in the Year Book of Radiology, and Sidney Rubenfeld, B. S., M. D., Associate Visiting Radiation Therapist, Bellevue Hospital; Instructor in Surgery, New York University Medical College; Assistant Adjunct Radiation Therapist, Hospital for Joint Diseases,

New York City. Cloth. Pp. 120, with 55 full-page plates. Price, \$4, postpaid. Chicago: The Year Book Publishers, Inc., 1939.

## BOOK REVIEWS

**Diagnostic Standards.** Tuberculosis of the Lungs and Related Lymph Nodes. Tentative Edition, 1938. Paper. Pp. 32. New York: National Tuberculosis Association, 1938.

Standards of diagnosis for tuberculosis fill a long-felt need. One of the outstanding features of the book is the classification of primary and secondary infections, which are clearly and concisely stated. The value of the tuberculin test, as a means of finding the positive reactor for further study with x-ray and laboratory tests, is beyond question, and the much discussed question of the value of the tuberculin test in adults has been explained in a very conclusive manner. The suggestions regarding the care to be used in x-ray technique are very timely, especially as to the necessity for unvarying technique in serial x-rays. The classification as the case progresses toward recovery and final discharge would be very helpful to physicians in institutions who must always keep in mind the responsibility of returning a doubtful case to homes and society in general. The book can be read in a very few minutes, and should be invaluable to all physicians in private practice, as well as those who are specializing in the diagnosis and treatment of tuberculosis.—F. J. R.

**A Fundamental Approach to Bacteriology.** By Courtland Sawin Mudge, Ph. D., Dairy Bacteriologist in the Experiment Station and Associate Professor of Dairy Industry, University of California, and Floyd Russell Smith, Ph. D., Junior Dairy Bacteriologist in the Experiment Station and Instructor in Dairy Industry, University of California. Paper. Pp. 265. Price, \$3. San Francisco: J. W. Stacey, Inc., 1939.

Primarily a text for beginners in bacteriology, this small volume is fascinating reading for any one whose course in

(Continued on Page 18)

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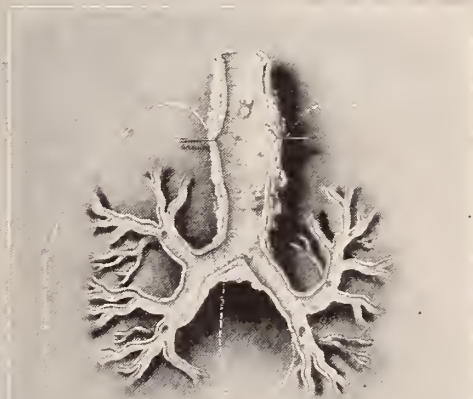
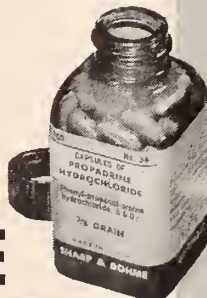
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### BOOK REVIEWS

(Continued from Page 16)

this study was a primitive matter of handling and identification of species, and this reviewer read the book through as if it were a "thriller." The authors show the bases of the study of bacteria, physics, chemistry and ecology to be interesting, because these complicated matters are made clear as only they can be by writers who understand their subject well and can express their ideas in simple language. The work is good for reference even for those who have large (unread) bacteriologies, those thick, fine-print tomes listing species, peculiarities, and, even more peculiar, the names for the present fashion. References are given after each chapter; these lists could well be shortened, and better, give some critical idea of the values of the different citations. Mudge and Smith's book, therefore, will be of real use to any physician who employs a technician in his office, and, openly or surreptitiously, it will probably be found that the physician himself will be reading it.

Clear thinking, logic, the "Fundamental" is good writing and good reading.—Rawson J. Pickard.

**Tuberculosis Among Young Women.** Combined and Revised Edition. By Edna E. Nicholson. A combination of two studies of tuberculosis mortality among young women originally made for the National Tuberculosis Association. Paper. Pp. 67. New York: National Tuberculosis Association, 1938.

This volume is an interesting piece of research dealing with the factors contributing to the predominance of tuberculosis among young women, as compared to the same age-group of young men, written by Edna E. Nicholson and made for the National Tuberculosis Association. Methods pursued and the analysis of findings are very interesting and enlightening; bringing out the conclusions that the late adolescent group and early adolescent group take the higher toll rather than the school-age group. The work very clearly sets forth that, with the exception of the physiological factors, the findings of the survey seem to overthrow most of the existing theories concerning the lives of young women, from as far back as 1860 up to and including the present time.—F. J. R.

**Physical Diagnosis.** By Richard C. Cabot, M. D., Professor of Clinical Medicine Emeritus in Harvard University, Formerly Chief of the West Medical Service at the Massachusetts General Hospital, and F. Dennette Adams, M. D., Instructor in Medicine in the Harvard Medical School, Courses for Graduates; Associate Physician at the Massachusetts General Hospital. Twelfth Edition.

Cloth. Pp. 846. Price, \$5. Baltimore: William Wood & Company, 1938.

There is something of achievement for a work to maintain its position of eminence in its field through twelve editions and nearly forty years. Cabot's Physical Diagnosis, in its twelfth edition, may still be accepted as standard, not alone for students, but also as ready reference for practitioners.

The book has preserved much of the outstanding teaching personality of Doctor Cabot, reflecting his very wide observation and experience. This edition, however, has been enriched by contributions from specialists in their several branches associated with the author. To the essentials have been added discussions at considerable length upon many special refinements that contribute to greater accuracy of investigation. The text is generously supplemented by reproductions of line drawings, photographs and roentgen ray photographs, as well as by numerous tables.

(Continued on Page 20)



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## BOOK REVIEWS

(Continued from Page 18)

We feel assured that the work will merit and receive in this enlargement the same popularity and commendation that have been accorded its previous editions.

**Anus, Rectum, Sigmoid, Colon. Diagnosis and Treatment.** By Harry Ellicott Bacon, B. S., M. D., F. A. C. S., F. A. P. S., Assistant Professor of Proctology, Temple University School of Medicine; Assistant Professor of Proctology, Graduate School of Medicine, University of Pennsylvania; Visiting Proctologist, St. Luke's and Children's Hospital; Proctologist, National Stomach Hospital; Consultant Proctologist, Mercy Hospital; Assistant Surgeon, Radiologic Department, Philadelphia General Hospital; Co-Founder and Past President, Proctologic Society Graduate Hospital, University of Pennsylvania. Introduction by W. Wayne Babcock, A. M., M. D., LL. D., F. A. C. S., Professor of Surgery, Temple University School of Medicine. Foreword by J. P. Lockhart-Mummery, M. A., M. B., B. C. (Cantab), F. R. C. S. (Eng.), Emeritus Surgeon, St. Mark's Hospital, London, England. Cloth. Pp. 855, with 487 illustrations in the text, mostly original, by William Brown McNett. Price, \$8.50. Philadelphia: J. B. Lippincott Company, 1938.

For the general practitioner, general surgeon or proctologist, this excellent book will be welcome, filling the need of a comprehensive survey of modern methods in the diagnosis and treatment of diseases of this region. Instead of the usual didactic presentation of an author's views and beliefs, this volume simply sets forth the accepted ideas of today, so that the reader may draw his own conclusions or select the technique which most appeals to him. Its wide scope covers anatomy, examination and anesthesia, as well as diseases both inflammatory and neoplastic, and even includes chapters on malformation and injuries. Under each disease-group is found a table of differential diagnosis, which makes it a source of information for ready reference. The many illustrations are of value particularly in diagnosis and in showing steps

(Continued on Page 22)



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## BOOK REVIEWS

(Continued from Page 20)

of procedure. Appended to each chapter is a bibliography which, in itself, is worthy of note. Altogether, an excellent volume well planned and executed.—Harold I. Sipman.

**Clinical Pathological Gynecology.** By J. Thornwell Wither-  
spoon, B. S. (Princeton); B. A. and M. A. (Oxon);  
M. D. (Johns Hopkins); Formerly Associate Professor  
of Experimental and Pathological Gynecology, Indiana  
University Medical Center, Indianapolis. Cloth, Pp. 400,  
illustrated with 271 engravings. Price, \$6.50. Philadel-  
phia: Lea & Febiger, 1939.

This book is the outgrowth of a medical school course in which gynecologic pathology was combined with a brief clinical consideration of the disease in question. The illustrations, which constitute over one-third of the book, are well chosen, and the original photomicrographs are excellent. The text itself is rather sketchy, the bibliography poor, and many of the author's remarks about treatment are entirely too dogmatic (e. g., "... any ovarian tumor, which is the size of a hen-egg or greater, and which can be readily palpated, should require surgical intervention.") The seventy pages on endocrinology include theoretical discussions of doubtful value, and need some revision. The chapter on ovarian tumors, while short, is up-to-date and well organized. The book should be of considerable value to medical students as a basis for their course in gynecologic pathology, but is entirely too incomplete to serve as a reference book for the average surgeon or gynecologist.—E. W. P.

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<sup>1</sup> "Twenty-five years of Health Progress"—Metropolitan Life Insurance Co., 1937; Pages 339-340.

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\*Gynecology and Obstetrics, Vol. I, Chapter V, Page 44, Carl Henry Davis, Editor. Published by W. F. Prior Co., Inc., Hagerstown, Md.

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### **TWENTY-FIVE YEARS AGO**

(Continued from Preceding Page)

ance of the Characteristic Blood Reaction, and of the Positive Wassermann Reaction," by Walter V. Brem, M. D., Los Angeles.—The investigations of Donath and Landsteiner, Eason, Hoover and Stone, Moss, Cooke, and others have established the fact that in paroxysmal hemoglobinuria there is a characteristic blood reaction dependent upon a unique autohemolysin of the amboceptor complement type. All are agreed that amboceptor unites with the corpuscles only at low temperatures; but there is some difference of opinion regarding the temperatures at which complement unites with the amboceptor. However, the lytic action of the complement is exerted only after the temperature is raised. The characteristic reaction is, then, that when the blood is chilled to 0 to 5 degrees centigrade, and then the temperature is raised to 37 degrees centigrade, there occurs a solution of the corpuscles. This reaction explains the clinical phenomenon that the attacks of hemoglobinuria follow when the patient is exposed to cold. These attacks may be induced at will by immersing portions of the body in ice water for a certain length of time. . . .

From an Original Article on "The Status Lymphaticus," by John Mackenzie Brown, M. D., Los Angeles.—The reason for bringing this subject to your attention is the fact of the great number of tonsil and adenoid operations done throughout the country, and the number of deaths occurring during, or shortly after, these operations. All, or nearly all, of the deaths are attributed to the status lymphaticus.

How it could be possible for death to occur after so slight an operation as removal of adenoid tissue, or why there

(Continued on Page 28)

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\* Journal A.M.A. July 9, 1938, Vol. 111, page 156.

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### TWENTY-FIVE YEARS AGO

(Continued from Page 26)

exists such a condition generally known as status lymphaticus, is not at all clear. Pathology, laboratory experiments, or literature, past or present, do not seem to have proven anything. The why is as unexplained at the present moment as it was at any time in the past.

The status lymphaticus consists, in general, of a hyperplasia of the thymus, thyroid, spleen and lymphatic glands throughout the body, and a hypoplasia of the cardiovascular system. . . .

*From an Original Article on "The Consideration of Nasal Conditions Causing Asthma," by William H. Dudley, M. D., Los Angeles.*—The fact that the causes of asthma are numerous, often reflex, and in some measure hereditary,

renders the study of this disease somewhat complicated, nevertheless quite interesting, inasmuch as in recent years much has been learned which renders its treatment more satisfactory. It is the purpose of this paper, however, to take up only nasal, postnasal and accessory sinus conditions, together with the rationale of their operation. . . .

*From an Original Article on "The Relation of Local Infections to Joint Affections," by Leonard W. Ely, M. D., San Francisco.*—In few other branches of medicine is the losing fight of clinical experience against scientific research more evident than in the joint inflammations. The student of medical history will find that, until recent years, the results of centuries of clinical observation showed that "rheumatism," a clinical entity, embraced all or nearly all cases of arthritis. This rheumatism was due to cold, to

(Continued on Page 30)



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### TWENTY-FIVE YEARS AGO

(Continued from Page 28)

overwork, to a run-down condition of the body. It often supervened upon "fevers" and exhausting diseases. It was found in the gouty and in the phthisical, and often followed "sore throat." Lowered resistance enabled it to get a foothold, and the "locus minoris resistentiae" determined its abiding place. We recognized acute inflammatory rheumatism, chronic rheumatism, gouty rheumatism and rheumatic gout, scarlatinal rheumatism, gonorrheal rheumatism, syphilitic rheumatism, sciatic rheumatism, and many more. One by one the various constituents of this once protean disease have been identified, described and named, until now rheumatism has come to be restricted almost completely to an acute febrile disease with a well defined course. The recent discoveries of Rosenow, completing the earlier work of Schüller, Poynton, Paine, and others, and explaining their

contradictory findings, indicate that the term soon will become obsolete here also. . . .

*From an Original Article on "The Curative Treatment of Pneumonia, with a Report on the Use of Leukocytic Extract," by Harry B. Reynolds, M. D., Palo Alto.—Medical research thus far has not developed any means of specifically destroying the invading organisms of pneumonia. Our curative efforts must be limited to aiding the biologic mechanism of attack, defense, and reinforcement. First, by putting the patient in a condition of physiologic rest, we allow his body cells and fluids to concentrate on the development of his defense. No vital power should be diverted by muscular effort, mental excitement, or nervous fatigue. Nutrition should be as nourishing and as abundant as the patient can dispose of; light, solid food when the digestive function is efficient, fluid when the conditions*

(Continued in Back Advertising Section on Page 34)

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# CALIFORNIA AND WESTERN MEDICINE

OFFICIAL JOURNAL OF THE CALIFORNIA MEDICAL ASSOCIATION

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NOVEMBER, 1939

NO. 5

## California and Western Medicine

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EDITOR . . . . . GEORGE H. KRESS

*Advertisements.*—The Journal is published on the seventh of the month. Advertising copy must be received not later than the fifteenth of the month preceding issue. Advertising rates will be sent on request.

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Advertising Representative for Northern California  
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*Change of Address.*—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

*Responsibility for Statements and Conclusions in Original Articles.*—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

*Contributions—Exclusive Publication.*—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

*Contributions—Length of Articles; Extra Costs.*—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

*Leaflet Regarding Rules of Publication.*—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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## EDITORIALS†

### NEXT YEAR'S ANNUAL SESSION

**Sixty-Ninth Annual Session: Hotel del Coronado, May 6-9, 1940.**—Members are again reminded that the sixty-ninth annual session of the California Medical Association will convene on Monday, May 6, 1940, in Hotel del Coronado, in the City of Coronado. The San Diego County Medical Society local committee of arrangements promises to do all within its power to make the gathering, in the quality and quantity of the entertainment features, measure up to the best standards of the past. Coronado, of itself, always has wonderful charm.

The kind of story to be chronicled by the scientific sessions will depend largely upon the interest displayed therein by members of the component county medical societies throughout the State.

Basic considerations include active participation in activities such as programs of scientific sections, scientific exhibits, and the technical or commercial displays.

\* \* \*

**Annual Session Innovations.**—The Section officers during the last several months have been actively engaged in contacting possible essayists, and several weeks ago these officials met with the California Medical Association Committee on Scientific Work to further elaborate the plans in hand. The conference developed agreement upon some interesting departures from former procedures. At next year's session a particular effort will be made to emphasize the place of general practice in the modern day set-up of medical service. While the twelve scientific sections will meet as heretofore, and members will present topics having appeal to the respective specialists, the arrangement of the four-day program will be changed by exclusively reserving the morning hours for the general meetings; the afternoons, and perhaps one or two evenings, being the periods during which the sections in the specialties will hold their meetings. Specialty sections can also utilize Thursday afternoons for additional meetings.

\* \* \*

**Four General Sessions, One Each Morning.**—The agreement concerning the general sessions to

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.



be held on Monday, Tuesday, Wednesday and Thursday mornings contemplates a tentative arrangement somewhat as follows:

On Monday morning, Dr. Charles A. Dukes of Oakland, in his presidential address, will officially open the sixty-ninth annual session. One or two speakers selected by the Council will present topics on phases of organized medicine having relation to current California problems. In addition, an out-of-state guest speaker may present a discussion of some phase of scientific medicine.

On the second day, Tuesday, the program will accentuate the medical aspects of endocrinology, with considered discussion from several angles, after which, at 10:30 o'clock, will be staged the annual clinical-pathological conference in which so much interest has been manifested during the last several years.

In similar wise, on Wednesday morning, surgical aspects of certain conditions will be emphasized; but here also, with special effort to make the discussions of equal interest to physicians in general practice.

On the last day, Thursday, a series of five or six talks on recent progress in scientific medicine, presented again, not from ultra scientific standpoints, but rather in relationship to general medicine and practice, will conclude the four morning meetings.

\* \* \*

**Effect on Section Programs.**—The Section officers who last month met with the Committee on Scientific Work fully appreciate that the new arrangement, in which the four mornings are given over to general meetings, will necessarily curtail the number of papers for which place can be made in the specialty sections. In the discussion that ensued, it was even suggested that several of the smaller sections might be content to hold only one meeting to be devoted to subjects in the specialties, with or without a conjoint or symposium meeting with an allied section or sections.

\* \* \*

**Annual Session Housing of Departments Increasingly Difficult.**—In this connection, it is important that members of the twelve scientific sections should realize the difficulties involved in providing, in one hotel, adequate quarters for twelve Scientific Departments, a House of Delegates, a Council, a Woman's Auxiliary, and a Heart Conference, these activities together necessitating a total of sixteen meeting rooms, if each should aim to meet during the same hours. That is not all for, in addition, much space must be provided for the technical or commercial exhibits, from which comes the income to pay the expenses of several thousand dollars incident to an annual session. Also to be considered are the space allocations for the scientific exhibits and film presentations. Plans are in the making to run an extended series of films on medical and surgical procedures, all according to a definite time schedule, and under direction of an experienced operator. It is evident, therefore, that a varied, valuable and interesting annual session program is in the making.

**Coöperation Requested.**—Members of the Association who have papers in mind for possible presentation at the Coronado annual session should communicate promptly with the proper Section Secretary (listed in the roster of Sections on advertising page 6).

A special invitation also is extended to all who are in position to present material or displays in the Scientific Exhibit, this department being in charge of the Association Secretary, to whom communications may be addressed.

The headquarters hotel will be Hotel del Coronado, and requests for reservations are now in order. In this issue, on page 333, additional information is given concerning hotel accommodations in Coronado and San Diego.

In January, the Committee on Scientific Work and the Section Secretaries will meet again to formulate the final programs for the general and section meetings. As stated, it behooves all members, who wish to have studies or papers considered for places on the various programs, to submit their requests at an early day. Such coöperation will be greatly appreciated by both the Central Committee and the Section Officers.

#### CURRENT ISSUE OF OFFICIAL JOURNAL: CHANGES IN CONTENTS AND FORMAT

**Del Monte House of Delegates Resolution No. 1.**—At this year's annual session of the California Medical Association at Del Monte in May last, printing and other costs incident to the publication of CALIFORNIA AND WESTERN MEDICINE were discussed from various angles. Resolution No. 1 authorized the appointment of a special committee by the Speaker, to make a survey of the OFFICIAL JOURNAL and other Central Office arrangements. On two previous occasions, in recent years, such surveys have been made, but under direction of the Council.

In a report submitted by the Committee at the meeting of the Council held on October 7, some tentative comments and suggestions were made, indicating possible lines along which it might be feasible to provide more space for original articles, through elimination or reduction in space allocations of certain features and departments of the OFFICIAL JOURNAL. Among such matters mentioned were the discussions appended to original articles, topics included in the Lure of Medical History and Special Articles departments, and brief reprint items used in the advertising pages. It may be added that, in previous survey reports, suggestions of somewhat similar nature were made and considered.

\* \* \*

**Readers Requested to Register Their Opinions on the Changes.**—It is agreed that no publication format is possible that will have equal and one hundred per cent appeal to all readers. The typographical make-up of CALIFORNIA AND WESTERN MEDICINE, as it has been developed during the last ten years, represents in good part the present editor's thoughts of what an official journal of a state medical association should be in its function

as the printed expression of organized and scientific medicine in California. However, what may seem good to an editor may not always appeal to the readers of a publication; and since academic discussion of contents and format of a publication is not very satisfactory, it seems desirable to bring off the press several issues of the *OFFICIAL JOURNAL*, in which various suggestions, in the report\* recently made, will be incorporated. Readers may then be able to determine for themselves their own preferences in contents, features and format, and the Council and the Publication Committee will be glad to receive their comments on these matters as a guide for future consideration and procedure.

#### CHIROPRACTIC INITIATIVE: PROPOSITION NO. 2

**The Vote on the Chiropractic Initiative.**—On November 7, when the current issue of *CALIFORNIA AND WESTERN MEDICINE* will be about ready for the mails, the 1939 onslaught of cultist healing art practice on medical standards and practice will have been decided at the polls by the citizens of California. Were it not for this year's "Ham and Eggs" vagary, with a possibility of unpredictable political alignments and associations of related character, one would now be fairly safe in prophesying deserved defeat for the Proposition No. 2, a proposed law presented for the consideration of the electorate by a group of chiropractors, as an amendment to the existing chiropractic act of 1922; and designed, through high sounding and confusing phraseology, to extend the scope of healing art work of that cultist group into the domain of medical practice and scientific medicine.

It is to be hoped that the informative literature, placed, prior to the election, in the hands of physicians by the California Public Health League, was effectively distributed. If all have done their part, Proposition No. 2, in spite of this year's peculiar political line-up, will have gone down to defeat.

To each and everyone, therefore, who may have rendered aid in the efforts to protect the public health through defeat of the proposed chiropractic initiative, heartiest thanks are extended. If Proposition No. 2 received the rejection it so amply merited, the people of California will have another reason to be grateful to the medical men and women of the State and their many friends.

#### CALIFORNIA PHYSICIANS' SERVICE: A VOLUNTARY, NONPROFIT MEDICAL SERVICE CORPORATION

**Recent Organization Meeting at Fresno.**—In the City of Fresno, on Saturday, October 14, members of the Board of Trustees of California Physicians' Service met with the newly-elected administrative members and the appointed deputy medical directors for purposes of further organization, to hear reports on what had been accomplished to date, and to consider the work ahead.

In this issue appears an account of the Fresno meeting, submitted by the officers of California

Physicians' Service; and appended thereto is the fee table, with other information (see pages 334-338).

Since five thousand members of the California Medical Association have registered with California Physicians' Service, the Association members in general should improve this opportunity to orient themselves concerning the progress made by California Physicians' Service, the first state-wide medical service organization to come into existence under the sponsorship of a state medical association.

#### CLINICAL CONFERENCES: POSTGRADUATE CONTINUATION COURSES

**Educational Number of The Journal of the American Medical Association.**—Graduate work received considerable prominence in the interesting educational number of *The Journal of the American Medical Association* (issue of August 26, 1939, pages 773-790). The account of the activities carried on by the state medical associations throughout the Union shows how widespread is the interest in clinical conferences, when such meetings are brought within easy reach of physicians who, under the exigencies of private practice, often find it difficult to travel to more or less distant parts of the land, to avail themselves of graduate courses designed to keep them abreast of advancing medical science and methods.

It is hard to draw the line on what constitutes graduate training; for, in one sense, all medical experience, reading and study, and even the meetings of county medical societies, are nothing else than follow-up or continuation studies, carried on from undergraduate and intern training days.

In this connection, attention may be called to the progress made during recent years in county society programs, through elimination, more and more, of the didactic or dry paper presentations, and the substitution of clinical demonstrations.

\* \* \*

**Opportunities for Clinical Conferences in California.**—Component county medical societies of the California Medical Association are again urged to consider the opportunities for clinical conferences or refresher or continuation courses now available to all if the suggestions and opportunities offered by the California Medical Association Committee on Postgraduate Activities are utilized. Every county medical society should have a Committee on Postgraduate Work actively working in conjunction with the society's officers. The California Medical Association Committee on Postgraduate Activities, in efforts to promote interest in one- and two-day clinical conferences and continuation courses, is prepared to coöperate fully with local committees in organizing such meetings.

Available literature, obtainable from the California Medical Association Central Office, include: A leaflet, in which types of conferences are briefly considered and practical lines of procedure outlined; a list of suitable topics, as printed in the "Five-Year Study Program" (supplement to the October, 1938, issue of *CALIFORNIA AND WESTERN MEDICINE*); a roster of several hundred physicians who have stated their willingness to participate as

\* In Council minutes in this issue, see page 332 (Item 20).



teachers or demonstrators in the conferences; and reply and other blanks, utilization of which should make for successful gatherings with a minimum of confusion to the local committees of arrangements. In addition, funds have been set aside in the budget of the State Association for this calendar year, so that the travel expenses of the guest speakers will not fall on the local committee or members in attendance.

\* \* \*

**County Societies Urged to Give Prompt Consideration.**—From the standpoint of the State Association Committee all is in readiness to proceed. Officers of component county societies will be supplied with the information referred to above. Request is made that prompt consideration be given thereto by the officers and committees, and that the Association Secretary be informed of the decisions reached. Suggestions will be welcomed. The geographical areas need not be limited to county lines, since a clinical conference may be designed for a district including several counties, or, in certain areas, two or three branch societies within a single county. If California once makes a real beginning in this line of work, its advantages will shortly become so manifest that the movement will grow of itself, to the benefit of the county societies and of the citizens who are served by the physician members residing in the various localities. A prompt response to these requests will be much appreciated by the Committee on Postgraduate Activities.

#### MORE ABOUT OFFICIAL JOURNAL ADVERTISEMENTS: THEIR IMPORTANCE

**Advertising Income of State Medical Journals.**—Among state medical society journals, CALIFORNIA AND WESTERN MEDICINE holds a position well to the front in amount of receipts accruing from its advertising pages; such total income exceeding, in fact, that of several publications having a larger state association membership.

While an editor and business manager of a publication stand somewhat in the rôles of prejudiced witnesses, it may be permissible to propose the thought that one of the reasons why some out-of-state advertisers have seen fit to choose CALIFORNIA AND WESTERN MEDICINE as a vehicle, through which the attention of physicians could best be called to their products, may be due in part to the liberal use of short text articles which for years have appeared on the advertising pages of each issue of the OFFICIAL JOURNAL. The value of such a principle—of nearby placements calling the attention of readers to advertisements—has long been recognized by publishers, and has been equally appreciated by departments and agencies wishing to derive the largest return from their advertising investments.

\* \* \*

**"Support Your Advertisers."**—In the September issue, on page 148, appeared an editorial under the caption, "Support Your Advertisers," the comment indicating how active interest by members of the California Medical Association in

the OFFICIAL JOURNAL advertisements could be made to increase the income of CALIFORNIA AND WESTERN MEDICINE, and so reduce the amount of moneys needed from the general fund to maintain a journal of its size and kind.

The significance of this coöperation with advertisers has been recently stressed in the official publications of both *The Journal of the Connecticut State Medical Society* and *The Journal of the Medical Society of New Jersey*. The experience and observations of their editors apply with equal force to California conditions. In the hope, then, that the perusal of the comments referred to may lead members of the California Medical Association to give more active support to their own journal, these editorials of contemporaries follow in full text.

\* \* \*

**As Connecticut Sees It.**—*The Journal of the Connecticut State Medical Society* tells the story in a brief paragraph:

#### ADVERTISERS IN THE JOURNAL FOR 1940

To hold our present advertisers for the coming year we must satisfy them that we are interested in their products. Several by the use of coupons and literature offer to supply more information to our readers. We urge all to show their interest by replying to such advertisements during the remainder of 1939. The burden the state medical society assumes in maintaining the OFFICIAL JOURNAL is materially lightened by our advertisers. Our JOURNAL has made an excellent showing in its advertising during the years it has been in existence. We bespeak your hearty support.

\* \* \*

**New Jersey's Presentation.**—And under the caption "Our Advertisers," *The Journal of the Medical Society of New Jersey* presents this forthright editorial in which is explained the mutual relationship which should exist between a medical journal (in other words, between the members of a medical association who sponsor the publication), and the firms who give financial support through their advertisements:

#### OUR ADVERTISERS

Our advertisers are our partners in the project of *The Journal*. Oh yes, we *could* get along without the help of our advertisers, but we are grateful to them for paying the costs of the mechanical production and distribution of our monthly periodical, and then too, our members appreciate the information and educational value of the advertisements to themselves personally. For one thing, our acceptance of an advertisement amounts to an endorsement of the product or service of the advertiser, especially of his character and reliability. Also, the advertisements constitute an index of the sources from which products or services may be obtained.

One of the most pleasing and satisfactory evidences of the mutual appreciation of advertisers and users of their products is that afforded by the commercial exhibits at the annual meeting. There, sincere appreciation and good fellowship prevails between the representatives and the doctors, just as it does between the physician and his patient.

An advertisement in *The Journal* is like the doctor's sign over the door of his office. Only a small proportion of those who pass by the sign ring his door-bell; but if his sign is not in plain sight, he may as well close up. Only a few doctors read the advertising pages of our *Journal* from end to end, but some really do, and more actually complain when they cannot find the advertisement giving the address of the dispenser of a product which they must have in a hurry.

About one-half of our advertisements come to us from the Coöperative Medical Advertising Bureau of the Ameri-

can Medical Association, whose sole function is to place the announcements of the leading manufacturers of medical products which have a nation-wide distribution. A favorite device for testing the effect of the advertisements in the state medical journals is the use which physicians make of coupons offering samples or literature. One publisher of an expensive encyclopedia refused to renew his advertisement in the journal of one of the large medical societies because he had not received a single request for sample pages which he had offered. He said in a half joking way, "If I receive four coupons from an announcement in the forthcoming issue of your journal, I will immediately renew the advertisement." It happened that he received twelve requests, and he gladly kept his word.

Every doctor sees these coupons and other offers in our *Journal*, and many physicians are inclined to respond to them, but neglect to do so. If you are really interested in the offer, as many of you are, make use of it at once. This is especially important during the coming fall months when decisions for renewing the advertisements are made, based on the tangible evidence that the advertisements are actually read and appreciated.

It is a gratifying fact that several large advertisers are seriously placing trial advertisements in the state journals. Although you may not recognize your prospective customers, send for the coupons and literature that are offered in *The Journal*, and thereby demonstrate your interest in *The Journal* as well as the products which you will receive.

Finally, remember this fact: If it were not for the contributions of our advertisers, your annual dues would be increased by about three dollars.

\* \* \*

**Coöperative Medical Advertising Bureau of the American Medical Association.**—In the New Jersey editorial quoted above, reference is made to the "Coöperative Medical Advertising Bureau," a department of the American Medical Association through which practically all state medical journals work in securing advertising contracts from out-of-state firms. In a recent letter its director stated:

During the next three months many of our advertisers will be selecting their advertising media for 1940. So that your journal may make a good showing we suggest that you urge your readers to answer all coupons and offers of literature appearing during October, November, and December.

It is much easier to cultivate and hold advertisers than to resell them after they have become dissatisfied and cancelled. State journals have to counteract the reputation for poor reader response. . . .

While the Bureau is making every effort to renew all expiring contracts, and contact all potential prospects, it needs your support.

To all the above, we would again repeat the plea made in the editorial comment, "Support Your Advertisers," which appeared on page 148 in *CALIFORNIA AND WESTERN MEDICINE* for September. As there stated, "By giving this aid, members will be helping their advertisers, their Association, and themselves. Lend a hand!" The coöperation of California Medical Association members, therefore, will be greatly appreciated by the Council as well as by *CALIFORNIA AND WESTERN MEDICINE*.

**Other State Association and Component County Society News.**—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 330.

## EDITORIAL COMMENT†

### METABOLISM OF RADIO-ACTIVE IRON

That absorption of iron from the intestinal tract is determined by physiologic needs, is a most significant theory recently suggested by Hahn<sup>1</sup> and his coworkers, of the University of Rochester. This theory was deduced from their studies of the absorption, transportation and utilization of radio-active iron in normal, anemic and plethoric dogs.

Dogs of the anemic group were made relatively iron-free by repeated bleedings, supplemented by three to five weeks' maintenance on a practically iron-free diet. In their plethoric group the hemoglobin level had been raised 20 to 40 per cent by repeated blood transfusion. Radio-active iron was mixed with the routine diets of these dogs in the form of  $\text{Fe}_2(\text{SO}_4)_3$  or  $\text{FeCl}_3$ . Within four to eight hours after ingestion of this "radio-iron" ration, relatively large amounts of radio-active iron were demonstrable in the erythrocytes of the anemic group. In one dog, for example, by the end of twenty-four hours as much as 12.7 per cent of the ingested iron ration were recovered from the tissues, approximately 9 per cent being present in the erythrocytes, 0.3 per cent in the plasma, 0.4 per cent in the liver, and 3 per cent in the bone marrow. The normal or plethoric dogs showed but 0.15 per cent total iron absorption, 0.06 per cent being present in the erythrocytes, and from 0.01 to 0.03 per cent each in plasma, liver, spleen, and bone marrow.

The authors conclude from these differences that in some unknown way the epithelium of the intestinal mucosa is "conditioned" by the anemic state, so that hyperabsorption takes place. In normal and plethoric dogs, very little ingested iron is assimilated. In their opinion, this difference cannot be explained on physico-chemical grounds nor by any known cytologic "conditioning" factor. The only conclusion they draw is that, in some wholly unknown manner, the need of the body for iron produces hyperabsorption.

Whether or not the physiologic properties of radio-active isotopes of iron are identical with those of inactive iron has not yet been determined. The authors, however, postulate that the radio-active "elements" behave precisely like their inactive replicas in the physiology of the body. This postulate will have to be substantiated by convincing experimental evidence before a clinical interpretation of their results is possible.

P. O. Box 51.

W. H. MANWARING,  
Stanford University.

† This department of *CALIFORNIA AND WESTERN MEDICINE* presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

<sup>1</sup> Hahn, F., Bale, W. F., Lawrence, E. O., and Whipple, G. H.: *J. Exper. Med.* 69:739 (May), 1939.



## THE DIAGNOSIS OF LEPTOSPIROSIS

### WEIL'S DISEASE AND CANICOLA FEVER\*

The following clinical symptoms are of significance in the diagnosis of icteric or anicteric leptospiral infections:

(a) Acute onset, fever, headache, feeling of severe illness; definite symptoms of an acute infectious disease.

(b) Muscular pains, occurring spontaneously and when pressure is applied, localized in the thighs, calves, and back; and characteristic redness of the conjunctivae in about 80 per cent of the cases.

(c) Liver symptoms: jaundice, bilirubinuria, urobilinuria; occasionally cholemia. Even in the absence of jaundice the Van den Bergh indicates an increased bilirubin content of the serum, thus an increased destruction of red blood corpuscles and hepatic damage.

(d) Kidney symptoms: mild and severe nephritis, although observed in many infectious diseases, is always noted, and transition stages to the symptoms of hemorrhagic nephritis are frequent in severe cases. The urea content of the blood, without edema or hypertension, is definitely increased.

(e) During the first week a low blood pressure, with a weak and rapid pulse, is worth noting.

(f) A marked deviation to the left of Arneth's formula, accompanied by a decrease of blood platelets, is apparent.

(g) Infections, progressing as typical meningitis, should be suspected as leptospirosis. It is important to realize that all symptoms suggesting Weil's disease may be absent. If the patient's medical history gives no suggestions, such as no water accidents, no swimming, no occupations bringing him into contact with rats or no exposure to dogs, a laboratory investigation (serum test or examination of the urine), by properly qualified workers, is the only means revealing the true nature of the disease.

(h) Epidemiological information (swimming, fishing, working in sewers, etc.), may be of great importance. In recent years, evidence has come to light that dogs are occasionally sources of infection. Canines infected with the classical rat or the specific dog leptospira may infect children and members of a household in which an animal with leptospirosis is kept.

Laboratory investigations are of greatest importance in order to differentiate the diverse forms of jaundice, in particular the sporadic cases of epidemic catarrhal jaundice. From a social point of view, an accurate diagnosis is imperative; since the disease, when contracted—as in the case of sewer workers, fishermen, butchers—is regarded as an occupational accident and, therefore, compensable by law.

The George Williams Hooper Foundation.

K. F. MEYER,  
San Francisco.

\* See also, article on page 352.

You cannot stop contagious disease with a law, a health officer, and a placard. You must get coöperation of the people by education, by persuasion, and by organization.

## ORIGINAL ARTICLES

### THE USE OF VITAMINS IN THE TREATMENT OF ALCOHOLIC DISEASES\*

By JOHN MARTIN ASKEY, M. D.  
*Los Angeles*

VITAMIN deficiencies in chronic alcoholism are essentially the same as vitamin deficiency syndromes of other origin. Chronic alcoholism is merely the agency by which avitaminosis is induced, but it accounts for many clinically recognized forms of nutritional deficiency seen today.

Human caloric requirement can be attained by a small amount of food plus a daily potion of alcohol; but the daily human requirement for vitamins is not satisfied and deficiency syndromes develop. Certain of these concepts have become crystallized in the last decade. The anatomical and clinical differences between the neuritis of chronic alcoholism, and of beri-beri, are believed to be of degree only; Korsakoff's syndrome is not etiologically related to alcoholism per se, but possibly to avitaminosis; pellagra in chronic alcoholism is no different fundamentally from the earlier recognized tropical form.

To understand the vitamin deficiencies of alcoholism we must understand the normal chemistry and physiology of the vitamins involved, and the chemical and physiological aberrations that occur with inadequate supply. This is becoming more complicated every year.

The majority of nutritional deficiencies in chronic alcoholism arise from insufficient intake of the vitamin B constituents. Vitamin C deficiency has been reported, but is not commonly seen.

#### VITAMIN B COMPONENTS

The dissection of the vitamin B complex into an increasing number of components is simplifying, even as it complicates, our concept of the action of the individual vitamins. Elvehjem says one might suspect a giant firecracker had been placed under the vitamin, and that we have been busy ever since picking up the bits.

Four members of this complex have been isolated and in three the chemical structures determined. We should make an effort to use these chemically descriptive terms rather than the more confusing vitamin B numerology. Vitamin B<sub>1</sub> is now thiamin; the chief pellagra-preventing factor is nicotinic acid and vitamin B<sub>2</sub> or G is now riboflavin. The rat anti-dermatitis factor, or B<sub>6</sub>, has been isolated, but its structure is not yet known.†

The other components have not been obtained in a pure state, nor is their exact rôle in human nutrition understood.

\* Read before a joint meeting of the sections on General Medicine and Neuropsychiatry of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

† Since this paper has been given, the rat antidermatitis factor vitamin B<sub>6</sub> has been chemically synthesized. Its structure is 2-methyl, 3-hydroxy, 4, 5-di (hydroxy-methyl) pyridin.

Harris, S. A., and Folkers, K.: Synthesis of Vitamin B<sub>6</sub>. J. Am. Chem. Soc., 61:1245 (May), 1939.

## VITAMIN B PHYSIOLOGY

The identification of thiamin, nicotinic acid and riboflavin has led to a more detailed study and knowledge of their functions. They are no longer nebulous substances which must be given in terms of biologic units, but are definite compounds which may be prescribed by weight. It is possible that in the future we may think of their actions as integrating cellular physiology. They seem intimately related particularly to the carbohydrate metabolism. Carbohydrate is the principal fuel and its orderly disintegration, supplying energy and products for cell synthesis, is brought about by specific enzymes.

Disturbance of the chemistry of the individual cell leads to microscopic changes which are later projected into visible evidence of abnormal function—disease.

Thiamin, nicotinic acid and riboflavin all play important parts in assuring normal cell respiration. Thiamin is particularly needed in nerve, brain and heart-muscle cell metabolism. Nicotinic acid is essential for the normal functioning of the cutaneous and gastro-intestinal cells. Riboflavin is a universal cell catalyst. We can no longer think of these vitamins as simply correcting a general deficiency, but must now visualize them in more dynamic rôles. On absorption, they are transformed by a series of chemical reactions into specific enzymes which act as catalysts in inducing cell-oxidation. In deficiencies, these enzymes in their intermediate forms, the coenzymes, are quantitatively diminished. The resulting deranged cell metabolism produces the pathologic changes of avitaminosis.

Thiamin concentration has been shown to be lowered in the brain and blood of B<sub>1</sub> avitaminotic pigeons. The coenzyme of nicotinic acid is markedly diminished in the blood of pellagrins. The knowledge, that diets restricted to large amounts of glucose made pellagra worse, led Vilter and Spies to test the blood of patients with severe diabetic acidosis for the coenzyme. They found it greatly lowered. This apparently explains why pellagra is not infrequently encountered in patients with diabetes mellitus. Administration either of insulin or of nicotinic acid brought about a return of the coenzyme. Carbohydrate without adequate insulin in some way brings about a diminished concentration of the specific enzyme which prevents pellagra.

Decreased carbohydrate intake has been shown to delay the onset of polyneuritis, presumably by lessening the demand for thiamin.

Experimentally, both thiamin and riboflavin have been found necessary, in addition to insulin, in controlling the hyperglycemia of depancreatized dogs. A close integrative action apparently exists between the vitamins and insulin in glucose metabolism.

## GLYCOGEN STORAGE

The rôle of the vitamins in relation to glycogen storage is unsettled. Thiamin has received the most study and produces widely diverse effects in different species. B<sub>1</sub> avitaminosis causes an increase of glycogen in the liver in pigeons, but a normal liver glycogen in rats. Although it is believed that glycogen storage in the human decreases with thia-

TABLE 1.—*Vitamin B Complex*

Vitamin	Based on Physiological Discrepancies	Isolated	Chemical Structure Known
B 1		Thiamin	Thiamin
B 2		Riboflavin	Riboflavin
		Nicotinic acid	Nicotinic acid
B 3	Pigeon weight factor		
B 4	Rat anti-paralysis factor		
B 5	Pigeon weight rat growth		
B 6		Rat anti-dermatitis factor	
Factor	White rat growth		
Filtrate factor	Chick anti-dermatitis		

min deprivation, it has not been irrefutably established.

It is probable that other vitamin-endocrine interrelationships exist. The intact adrenal cortex seems to be essential for the activity of riboflavin. The exogenous chemical regulators of metabolism, the vitamins, and the endogenous chemical regulators, the hormones, are both necessary in maintaining a suitable environment for the tissue cell.

The clarification of these interrelationships presents yet another problem for study.

## PRODUCTION OF DEFICIENCY

Vitamin deficiencies in chronic alcoholism may be brought about in several ways. Usually it is due to an inadequate diet. Food, plus alcohol, may supply sufficient calories, but not sufficient vitamins. The thiamin-calory ratio has been investigated by Cowgill. Williams and Spies believe that a more accurate ratio is that of thiamin to the nonfat caloric intake, inasmuch as fat requires no thiamin for its metabolism. Another factor is that of deranged gastro-intestinal function, affecting both digestion and absorption. Gastric secretion in chronic alcoholism shows a diminution in volume; a diminished acidity and an increased incidence of achlorhydria, but little or no change in peptic activity.

It is impossible to predict whether a patient with chronic alcoholism will develop clinical manifestations of pellagra or those of polyneuritis. Diets deficient in thiamin are usually equally deficient in nicotinic acid and riboflavin. The symptoms of polyneuritis or of pellagra may predominate clinically, but multiple deficiencies are the rule.

Of 159 alcohol addicts studied by Brainerd and Jolliffe, 139 presented evidence of polyneuritis, 40 of pellagra, 24 encephalopathy, 30 liver cirrhosis and 48 alcoholic stomatitis. Many showed two or more of these findings simultaneously.

The variability of the deficiency syndromes produced is difficult to explain. Constitutional resistance of certain individuals is suggested by work on



TABLE 2.—Transformation of Vitamins Into Enzymes

Vitamins in Food	Coenzyme		Enzyme
Thiamin	Thiamin pyrophosphate	Plus specific protein	Cell oxidase and carboxylase
Nicotinic acid	Nicotinamide and phosphoric acid (cozymase)	Plus specific protein	Enzyme for lactic acid formation and glycolysis
Riboflavin	Riboflavin phosphoric acid	Plus specific protein	Yellow enzyme for cell oxidation

experimental animals. Individuals undoubtedly differ in capacity to utilize and store a particular vitamin.

#### PATHOLOGIC CHANGES

The pathologic changes will depend upon the extent to which the tissue cells have been deprived of the particular vitamin essential for their normal metabolism. Degeneration of the medullary sheaths of the peripheral nerves occurs with thiamin deprivation of only a few weeks, but we must remember that riboflavin deficiency can also cause such degeneration. Retrobulbar neuritis can occur in both pellagra and in polyneuritis. Korsakoff's psychosis is due to altered brain-cell function, possibly due to thiamin lack, but pellagra also produces a psychosis quickly relieved by nicotinic acid. The right-sided cardiac hypertrophy and dilatation of avitaminosis seem definitely ascribable to thiamin lack. The relation of the vitamins to cirrhosis is at present not only obscure, but puzzling. Pathologists agree that increased fat deposition usually precedes cirrhosis. Thiamin tends to increase liver fat, and choline, possibly a vitamin B complex component, tends to decrease it. A disturbed thiamin-choline vitamin balance might be a factor, but demands further investigation.

The cutaneous, oral and gastro-intestinal lesions of pellagra are due to lack of nicotinic acid which seems specific for the metabolism of the cells involved. However, the lesions clear more rapidly when riboflavin is added. No constituent of the vitamin B complex should be forgotten in connection with these pathologic changes.

#### MANAGEMENT

Prophylaxis is the therapeutic goal in the treatment of any disease. Recognition of chronic alcoholism as a potential precursor of deficiency disease makes necessary careful regulation of the diet. The daily human requirement for both thiamin and riboflavin is about 1-2 milligrams, and for nicotinic acid 10-25 milligrams. The wholesale cost of the daily requirement of pure thiamin is only one cent, riboflavin four cents and nicotinic acid one-tenth of one cent; but Elvehjem says he prefers to consume his in the form of a pork chop, a glass or two of milk, and a small piece of liver. Where bodily depletion has occurred, vitamins must be administered as drugs and enough given to correct the deficiency. Until such time as reliable quantitative chemical tests for vitamin blood, urine and tissue levels are available, telling us of the degree of storage and excretion, treatment must remain largely empirical, based upon the response of the patient.

#### PRECLINICAL FEATURES

An early diagnosis in the subclinical stage will lead to early treatment.

The neurologist can demonstrate changes in the electrical excitability of peripheral nerves long before subjective and objective signs of peripheral neuropathy appear.

The clinician must be alert to the significance of leg-muscle fatigue, and to the tenderness of the calves. These appear before other signs.

Dyspnea and palpitation upon exertion, or tachycardia, if associated with even minimal signs of polyneuritis, may be the cardio-vascular sequelae of thiamin deficiency.

The slightly swollen tongue, with teeth impression at the sides and top, should arouse suspicion. They may be the precursors of later reddening and ulceration of the tongue and mouth as found in pellagra. Spies has lately introduced a test of the urine for a porphyrin-like substance which may be of value in determining subclinical pellagra.

#### TREATMENT

Treatment in the early stages will repair nerve degeneration before irreversible changes have occurred; will prevent cardiac hypertrophy and dilatation, and skin and mucous membrane damage.

In subclinical forms a well-rounded diet of 4,500 calories may suffice. This should include liver, eggs, whole-grain cereals, fresh fruit and vegetables, peas and beans; supplemented by 30 grams of powdered brewers' yeast. It is well to remember that a high carbohydrate intake increases both the thiamin and nicotinic-acid requirements.

In mild polyneuritis, 5 to 10 milligrams of thiamin daily by mouth are adequate. Severer degrees are treated with increasingly high doses, and at times as high as 50 milligrams by injection may be needed.

If cardiac disease is present, the requirements may vary from moderate to massive doses. Cherry obtained dramatic improvement in a series of cases reported at the Pasadena meeting last year, using moderate doses. Marlowe has given 200 milligrams daily for forty-seven days in severe beri-beri heart. The largest effective dose that can be employed without loss through the kidneys, before absorption and storage occur, is not yet known.

The predominance of pellagra indicates an emergency demand for nicotinic acid, which should be administered in doses of 100-500 milligrams daily. Recent work has shown the need of riboflavin, which should be given in 5-milligram doses twice daily. Thiamin should be added for coincident polyneuritis.

The anemia, usually macrocytic, seen in about 50 per cent of chronic alcoholics, seems to be due to an extrinsic factor deficiency and responds to the general dietary correction.

In closing, I must again emphasize the necessity of using all of the components of the vitamin B complex in therapy. While one may use moderate or even large quantities of the indicated crystalline substances, the wise physician will continue to supplement such therapy with liver, brewers' yeast, or extracts of rice bran.

## NUCLEUS PULPOSUS RUPTURE AND ITS RELATION TO INJURY—NEUROSURGICAL ASPECT\*

By HOWARD A. BROWN, M.D.  
*San Francisco*

**R**UPTURE of an intervertebral disk and its protrusion into the spinal canal was first described by Kocher in 1896. He observed this phenomenon at autopsy in a patient who died following a fall. In 1911, Middleton and Teacher in England, and Goldthwait in this country, independently reported cases of ruptured intervertebral disk, with neurologic findings. The condition failed to receive much attention, however, until a few years ago when Mixter and Barr, at the Massachusetts General Hospital, reported a series of cases which aroused general interest throughout the country. Judging from the increasing number of cases encountered during the past two years, we must assume that low-back pain, with sciatica, caused by rupture of the intervertebral disk, is not at all uncommon.

### ANATOMIC RELATIONS

Let us first consider the anatomic relations of the intervertebral disk and the spinal canal. The intervertebral disk is composed essentially of three parts: first, a central portion known as the nucleus pulposus, which is both fluid and elastic. It acts much as a rubber ball-bearing does, absorbing the greatest part of the shock in movement and weight bearing. The nucleus pulposus is actually a remnant of the notochord, and lies nearer the dorsal than the ventral limits of the intervertebral disk. Surrounding the nucleus pulposus is the annulus fibrosus, which is more fibrous and less elastic, and is attached firmly to the adjacent bony surface of the vertebral body. It is also attached to the anterior and posterior longitudinal ligaments, but the attachment to the anterior ligament is much the stronger of the two. The function of the annulus fibrosus may be likened to that of the capsule of a joint. The third portion of the disk consists of a thin, cartilaginous plate, overlying the nucleus and merging into the annulus, in direct contact with the surface of the vertebral body. Ruptures of the intervertebral disk may result from disease processes, gradual wear and tear associated with constant use of the back, a single direct injury, or a combination of these factors. Such ruptures may occur through the cartilaginous plate into the spongiosa of the vertebral body, in which case they may be demonstrated by x-ray, though they do not produce clinical symptoms. The posterior herniations into the spinal canal are those with which we are concerned, because of the resultant compression of the nerve root and the associated signs and symptoms. The attachment of the annulus to the posterior longitudinal ligament and the adjacent bone surface is much less firm than that at its anterior margin, where it is strongly united to the anterior

longitudinal ligament. As a result, flexion of the spine, coupled with weight bearing, tends to produce posterior herniation which may be of nucleus pulposus, annulus fibrosus, or a combination of both. The largest number of herniations occur in the low lumbar region, undoubtedly as a result of the range of motion and the strain of weight bearing to which this area is subjected. In this region the neural canal contains only the peripheral nerve roots of the cauda equina. We often visualize these roots as freely floating in the spinal fluid, and it is at first difficult to conceive how small protrusions of the intervertebral disk may produce compression of the nerve roots. Careful study of the anatomy, however, shows that, as each nerve root makes exit from the dura, it assumes a lateral position in the canal and is rather firmly fixed by its dural cuff as it proceeds to the intervertebral foramen. Just dorsal to the nerve root lies the firm ligamentum flavum, and just ventral to it is the intervertebral disk, so that the space for the passage of the nerve root is very narrow. Hence, a slight protrusion of the disk may produce compression of the nerve root with resultant clinical symptoms.

### CLINICAL FACTORS

From a clinical standpoint, this condition is very difficult to differentiate from other low-back conditions, such as those referable to lumbosacral or sacro-iliac disorders. In the majority of these patients a history of some type of injury or strain can be elicited, although a few have been unable to recall any specific trauma. Undoubtedly, gradual wear and tear, or even disease of the intervertebral disk may play a predisposing part in the production of many of the ruptures. The disk is relatively avascular, and repeated minor injuries over a long period of time may weaken its attachments, thus allowing rupture and protrusion after relatively minor trauma. The commonest history is of a fall on the buttocks, or of lifting in association with flexion and torsion of the spine. Many describe a snapping or tearing sensation low in the back, followed by pain of increasing severity. Later, the pain radiates into the buttocks and on down the sciatic distribution into the thigh and leg, usually reaching the ankle and foot. This pain is persistent, often severe, and is aggravated by exertion or movement of the back, but is alleviated to some degree by rest in the recumbent position. Paresthesia or numbness, as well as some motor weakness, may appear in the affected extremity, the location depending upon the particular nerve root involved. The symptoms are usually unilateral, but may involve both extremities if the protrusion is of large size. Only occasionally are the sphincters affected.

### OBJECTIVE SIGNS

There is considerable variation in objective signs. The more common findings are a list to one side, restriction of all movements of the back, especially flexion, and limitation of straight leg raising on the affected side. Local tenderness of the back may be present, but is seldom marked. The presence of muscular weakness depends upon the degree of

\* From the Department of Surgery, University of California Medical School.

Read before the Industrial Medicine and Surgery Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9-12, 1938.



compression of the nerve root; the anterior tibial muscles are most frequently affected. Probably the commonest single finding is a decrease in, or the absence of the Achilles reflex on the affected side. Sensory disturbances of varying degree may be found in the thigh or leg, depending upon the nerve roots involved. The most frequent site is that referable to the fifth lumbar root, including the outer aspect of the leg and a portion of the dorsum of the foot.

#### X-RAY STUDIES

Plain x-ray films seldom add much to the diagnosis, except occasionally to show a decrease in the space between intervertebral disks; this may occur, however, without clinical signs of herniation. The final diagnosis must be made by spinal puncture and subsequent studies. Occasionally, the Queckenstedt test will show evidence of a partial or complete obstruction in the canal; but in the great majority the spinal fluid hydrodynamics are normal. The total protein content of the spinal fluid is often elevated above 50 milligrams per 100 cubic centimeters of spinal fluid in patients with ruptured intervertebral disks, but this finding is not sufficiently constant to depend upon. Lipiodol studies are essential to determine accurately the presence or absence of any encroachment on the dural sac. These studies are made on the fluoroscopic table, following the injection of from  $3\frac{1}{2}$  to 4 cubic centimeters of lipiodol. The patient is examined in the prone position on a tipping table, and any suspicious defect is immediately checked by x-ray films taken with the patient still on the fluoroscopic table. The deformity demonstrated varies from a complete block to the mere absence of one of the nerve-root cuffs, depending upon the size and location of the herniated disk. Lipiodol is not to be used indiscriminately, and we do not feel that it should be injected until a thorough trial of orthopedic measures of treatment has been given. Injection of the oil is often followed by a temporary increase in painful symptoms, though we have seen no permanent alterations which could be attributed to its use. Recently, the injection of air into the spinal canal has been advocated as a substitute for lipiodol in diagnosing deformities in the spinal canal. In 1934 Coggeshall and von Storch, and Van Wagenen described its use; and more recently Young and Scott reported a series of cases in which the diagnosis was made by the use of intraspinal air. Unfortunately, the contrast between air and the shadows cast by bone is not sufficient to outline accurately the smaller defects which often occur in herniations of the intervertebral disks. Consequently, one would hesitate to do a laminectomy on the basis of air studies alone, unless a large defect or block could be demonstrated. On the other hand, we should not feel safe in accepting a negative diagnosis when we know that many of the defects are so slight that they require careful study even with a good contrast shadow such as lipiodol produces. With the technique available at this time, I do not feel that we can fully rely upon intraspinal air studies to determine small deformities in the spinal canal.

#### DIAGNOSTIC PROBLEMS

Enlargement of the ligamentum flavum, a normal structure lying in the dorsal and lateral aspects of the spinal canal, may produce symptoms and findings identical with those of the herniated intervertebral disk. Even the studies with lipiodol may not differentiate between the two conditions. Such enlargements apparently result from rupture of the elastic fibers of the ligament, the subsequent formation of scar tissue and an increase in the size of the ligament.

#### TREATMENT

Laminectomy is required for either condition, with removal of the herniated disk or enlarged ligament. In some cases, protrusions of the disk may be removed extradurally if they lie in a lateral position, or transdurally if their location is more central. In most instances the damaged disk may be removed easily in one piece after the overlying ligamentous capsule has been incised. A few are firmly attached and require excision while, occasionally, the disk may be ossified so that removal is impossible. In such an instance the decompression of the nerve root will serve to relieve the symptoms.

If it is necessary to remove one or more facets, it is wise to follow the laminectomy immediately by spinal fusion to insure the stability of the back. This is particularly true in those patients who are accustomed to performing heavy work as a means of livelihood. In general, the patients who did not require fusion have been up and about in two or three weeks after operation, while those who have had bone grafts have remained in bed for from six to ten weeks.

The results of operation have been most satisfactory in the majority of patients. Pain has been relieved immediately, indicating that compression of the nerve was its cause. Improvement in motor function and sensory alteration has been slower, since it depends upon a gradual recovery of the damaged nerve roots.

384 Post Street.

#### UTERINE CANCER: ROENTGEN RAY THERAPY\*

By DANIEL G. MORTON, M.D.  
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**D**URING the past ten years high voltage roentgen radiation has become a standard supplement to the radium treatment of uterine cancer. The voltages most generally used have been in the neighborhood of 200,000. Within the past few years, machines developing even higher potentials have become available in a few institutions. The supervoltages employed with these machines have ranged around 800,000. Opinions regarding the efficacy of roentgen therapy have varied, but most observers have felt that the results of radium ir-

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radiation were being improved. The 200 kv. radiations have now been in use long enough to allow some analysis of the results, while 800 kv. radiations still remain in the experimental stage. The present investigation is an attempt to evaluate the results of roentgen therapy obtained at the University of California Hospital in the treatment of cervical cancer. It is a source of great regret that the number of cases is small, for this makes definite conclusions impossible. However, it is felt that tendencies can be detected even in the results of a small series.

CLINICAL MATERIAL UNDER OBSERVATION

The material surveyed in this study consists of one hundred cases treated between April 1, 1931, when roentgen irradiation with 200 kv. was first started as a supplement to radium therapy for cervical cancer, and March 31, 1936. Thirty-two patients were treated more than five years ago, 58 more than four years ago, 82 more than three years ago, and 100 more than two years ago. In an additional sixteen cases, roentgen radiation was carried out for recurrences. Thirteen patients received two full courses.

TABLE 1.—Material	
Roentgen radiation—primarily .....100 cases	
32—Five-year cases	82—Three-year cases
58 —Four-year cases	100—Two-year cases
An additional twenty-nine courses were given during this period, sixteen for recurrences, thirteen were second courses.	

Supervoltage has been used in a number of the cases for the past four years. In reporting the results no distinction is made with reference to voltage, as the experience with supervoltage is not extensive enough to permit separate consideration. Only those cases are included in which full courses were given shortly before, at the time of, or shortly after the application of radium. This means the exclusion of a number of patients who were treated for recurrence a year or two after their primary radium treatment and a number who received incomplete courses. Also excluded are all cases in which operation was employed. The plan of treatment at this institution is to treat surgically all early cases (Groups 1 and 2), provided age and general condition do not contraindicate the radical operation; the remainder are treated radiologically. Thus we have had a total of 354 five-year cases between 1916 and March 31, 1933. Twenty-eight per cent of the cases were classed as operable and 72 per cent as inoperable. Of the ninety-nine operable cases almost half were treated surgically. This means that the cases with the most advanced growths were reserved for radiation. This policy has been continued whether radium alone was used or radium and x-ray. Slightly more than one-fifth of all the patients have lived for more than five years after treatment, while only 16.9 per cent of those (the worst) treated radiologically have survived the five-year period. This information will serve as a background for the results to be reported.

TABLE 2.—Type of Material Seen in This Clinic (Schmitz Classification)

Group	Cases	
I	35	Operable cases: Ninety-nine, or 28 per cent. Forty-eight of these were operated upon.
II	64	
III	160	Inoperable cases: Two hundred and fifty-five, or 72 per cent.
IV	95	
Absolute five-year survival—22.9 per cent.		
Absolute five-year survival, radiated cases only—16.9 per cent.		

TECHNIQUE OF RADIATION

The technique of radiation which we employ is as follows: when the patient is first admitted a biopsy is taken and radon applied according to the Memorial Hospital method. This involves the use of 100 to 150 millicuries, equally distributed between three or four capsules. The aim is to give a total of 4500 mch.—2000 mch. in the cervical canal proper, 1000 mch. in the fundus, and 1500 mch. against the cervix. This may be supplemented according to circumstances. Often tubes are placed in the lateral vaginal fornices, or needles are inserted into the para-cervical tissues. In some instances the patient receives as much as 7000 to 8000 mch. Usually the desired dose is arrived at in three sittings, a week apart. For the intra-cervical and intra-uterine applications the screening is Au 0.5 mm. and Rubber 2 mm. A tandem of three radon capsules in rubber tubing is used. For the vaginal applications, the screening is Au 0.5 mm., Br. 2.0 mm., Al 1.0 mm. Various plaques, boxes, and tubes are used. Constitutional reactions are rare, as are local burns. Fistulae, which could not be directly attributed to the advance of cancer, have not been observed with this method.

Roentgen therapy has been given before the radium in some cases, in which event a ten to thirty-day interval has been allowed between the termination of the x-radiation and the radium. In other cases the radium and x-ray have been given concurrently. For the past few years the radium has been given first, and followed in ten to twenty days by the roentgen therapy. This analysis has not shown one method to be more advantageous than the others. The roentgen therapy has been under the direction of Dr. Robert S. Stone. The 200 kv. radiations have come from a General Electric X-P tube activated by a constant potential apparatus at 200 kv. and 15 ma., and filtered through the wall of the tube (0.2 mm. Cu. equivalent) and 0.2 mm. Sn., 0.25 mm. Cu. and 2 mm. Al., or 0.5 mm. Cu. plus 1 mm. Al. Supervoltage radiations have come from the Sloan high-frequency generator, operated at from 600 to 1200 kv. and filtered through the tube wall of 1.5 mm. Cu. plus 3 mm. steel, and then through 2 mm. Pb., 1 mm. Cu., and 1.5 mm. Al. For further technical details I shall refer anyone interested to a recent publication by Doctor Stone,<sup>1</sup> in which the various physical factors are given. In general, four 10 by 20 centimeters fields—two anterior and two posterior—have been used. The number of roentgens per field has been gradually increased from 1000 to 1600 to the present dose of 2400 to 3000. No patient considered in this analysis received less than 1000 roentgens per field. The patients have been treated daily except Sundays for ten to thirty days. There have been, naturally, other minor changes in technique from time to time.

RESULTS

In Table 3 are given the results for the thirty-two five-year cases in which both radium and roentgen therapy were used. These are compared with the results obtained in all cases radiated, and with a group of cases radiated with radium alone between the years 1928 and 1931. This latter group is a better control group than all cases radiated because it contains about the same proportion of operable and inoperable cases, and because the radium technique employed during this time was



TABLE 3.—Five-year Results

Group	Radium and X-ray 1931-1933 Survival			Radium Alone 1928-1931 Survival		All Cases Radiated 1916-1933 Survival	
	Cases			Cases		Cases	
I	1	1 or 100	per cent	6	4 or 66.7	17	13 or 76.5
II	5	2 or 40	per cent	8	2 or 25	34	12 or 35.3
III	15	5 or 33.3	per cent	38	6 or 15.8	156	24 or 15.4
IV	11	1 or 9.1	per cent	27	None	95	2 or 2.1
Total	32	9 or 28.1	per cent	79	12 or 15.2	302	51 or 16.9
	18.8 per cent operable			17.7 per cent operable		13.5 per cent operable	
	81.2 per cent inoperable			82.3 per cent inoperable		86.5 per cent inoperable	

roughly similar to that used in conjunction with roentgen therapy. The 28.1 per cent five-year survival obtained for the group treated with roentgen rays is almost twice as great as the percentage of survivals after radium alone. This difference is illustrated more graphically by the survival curves for these two groups, shown in Figure 1.

Curves have also been constructed for the four, three and two-year cases (Figures 2, 3, and 4, respectively). This has been done because of the small number of five-year cases available. While it is realized that no great stock should be put in results obtained in less than five years, we believe that such results can at least indicate trends. The same control group is retained in each comparison. These curves indicate that much better results have been obtained after four, three, and two years following radium and roentgen therapy than were obtained at the same periods following radium alone. It is interesting that such marked improvement continues even in the face of a constantly increasing proportion of advanced growths among the cases treated since roentgen therapy was started. This change in the quality of the material is graphically illustrated in Figure 5.

The improvement in results must be explained upon the presumption that roentgen rays generated at high voltages are capable of reaching and killing cancer cells in portions of the pelvis which are inaccessible to the gamma rays of radium as ordinarily applied. Certainly, we are aware that cancer is present in the regional glands of a large proportion of Groups 3 and 4 cases. We are equally cognizant that cancer in these locations cannot be

affected materially by radium in the cervix or vagina. Therefore, we cannot expect to cure patients with regional gland involvement with radium alone. Presumably, roentgen radiation may destroy the cancer existing in regional glands, and thus account for the better results obtained in cases so treated. For several years we have been removing the regional glands in certain borderline cases. Some have received roentgen radiation and others have not. In time it should be possible to demonstrate a difference in the percentage of cases with involved glands, if roentgen radiation does in fact destroy cancer in these locations.

Of considerable interest is the recent report of Schmitz.<sup>2</sup> Of thirty-four cases of cervical cancer treated by 800 kv. radiations alone, no radium, seventeen, or 50 per cent, were alive and well at the end of three years. While this is only a three-year result, it indicates marked improvement over the results of the older methods. Schmitz believes that 800 kv. radiations are much more efficacious than 200 kv. radiations. Whether he is correct in this or not, his results point definitely to the relative effectiveness of high voltage radiation for cervical cancer.

#### REACTIONS

One of the principal disadvantages of high-voltage radiation is the immediate reaction. In treating cervical cancer it is necessary to expose comparatively large areas of the lower abdomen to the rays, consequently numerous loops of bowel, the bladder, and the rectum are subjected to large amounts of radiation. This often results in making

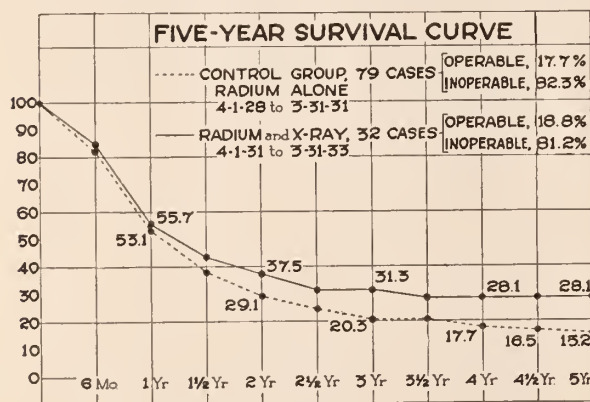


Fig. 1

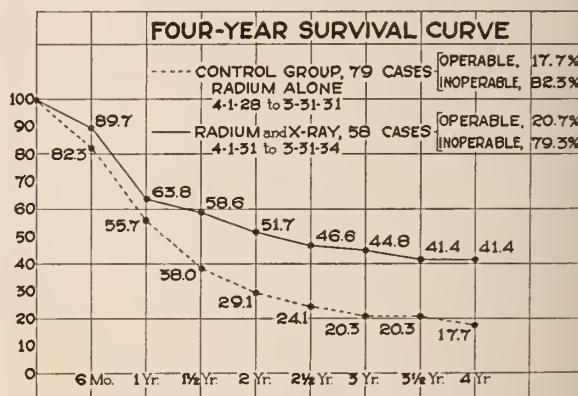


Fig. 2

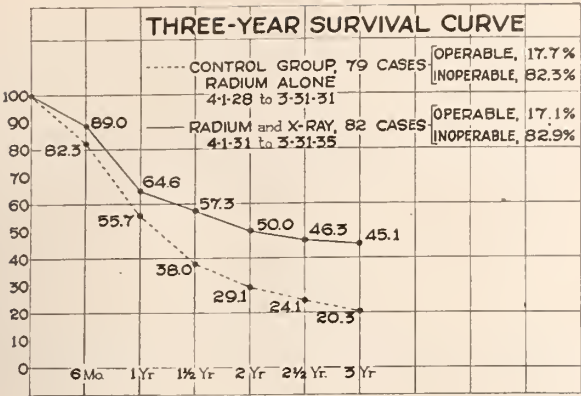


Fig. 3

the patient sick and miserable. The usual symptoms are nausea, vomiting, anorexia, loss of weight, diarrhea, urinary frequency, and tenesmus. Blood counts during the course of therapy show a leukopenia and relative lymphocytosis, and anemia, which generally are quite transient. The severity of the symptoms varies with the individual and with a number of physical factors discussed below. These reactions are of great importance because they sometimes result in the death of the patient or interruption of treatment. Some designate nausea and vomiting and the blood-changes as constitutional reactions. The explanation for such reactions is unknown. The remainder of the symptoms are mostly due to the irritation and destruction of the mucosa of the bowel and bladder. Some degree of this type of reaction is unavoidable. Physical factors which may influence the severity of the immediate reactions are kilovoltage, the total dose, the daily rate at which the radiations are given, the total duration of the treatments, the number and size of the fields, the number of fields treated at a time (and thus the volume of tissue radiated), etc. Indeed the large number of variable factors makes it almost impossible to correlate the individual variations in reactivity with any particular factor.

During the period under consideration, 129 courses of roentgen therapy were given to 116 patients with cervical cancer. I have attempted to evaluate reactions, dividing them into mild, moderate, and severe. No attempt has been made to separate so-called constitutional symptoms from those

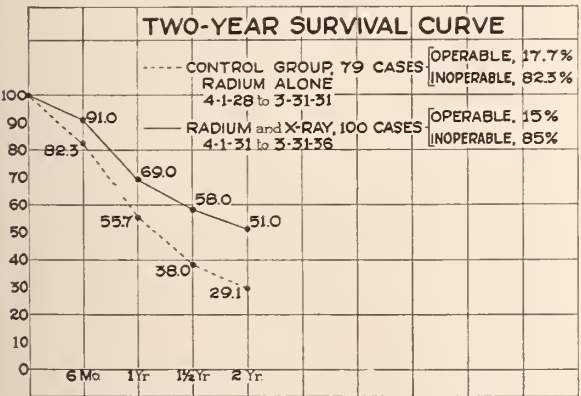


Fig. 4

TYPE OF MATERIAL DURING PERIOD OF STUDY

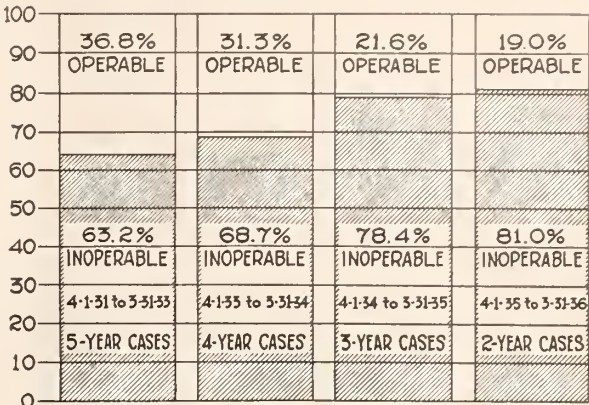


Fig. 5

due to mucosal destruction. The reaction was considered severe when there were marked nausea and vomiting, frequent and distressing diarrhea, marked loss of weight, and the patient was so sick that she was able to continue the treatments with difficulty. Hospitalization was required for many of these patients, and some of them died. The reaction was considered mild when nausea was slight or absent, diarrhea was mild and easily controlled, and anorexia and weight loss were minimal. Included under this heading are a number of cases in which little or no comment regarding the reaction was made at the time, presuming that a severe reaction would have provoked comment. The reactions were classified as moderate when the symptoms were quite marked, but caused no serious disability on the part of the patient. The results are tabulated in Table 4.

TABLE 4.—Immediate Reactions to Roentgen Radiation	
Anorexia, Nausea and Vomiting, Diarrhea, Loss of Weight, Leucopenia, Anemia	
Mild reactions .....	77 or 59.6 per cent
Moderate reactions .....	28 or 21.7 per cent
Severe reactions .....	24 or 18.7 per cent
Total .....	129*
* Total patients 116; thirteen had two courses.	

Slightly less than one-fifth of the patients experienced severe reactions. The remainder were either moderately or only mildly upset.

In Table 5 the cases are divided according to whether treatment consisted of 200 kv. or 800 kv. radiations.

TABLE 5.—Type of Reaction Correlated With Kilovoltage			
	200 Kv. Cases	89 Cases Per Cent	800 Kv. 40 Cases Per Cent
Mild	59	66.2	18 45
Moderate	20	22.4	8 20
Severe	10	11.4	14 35



Severe reactions were encountered in 35 per cent of the latter, as compared with 11.4 per cent of those treated with 200 kv. radiations. To put it another way, fourteen, or more than one-half of the entire number of the severe reactions, occurred after supervoltage radiations, which were used in less than one-third of the courses given. This does not necessarily mean that supervoltage *per se* was responsible, as there are other variables to be considered. Much larger daily and total doses were given with the 800 kv. machine than with the 200 kv. Thus, the increased number of roentgens given with the supervoltage machine may have been responsible for the greater proportion of severe reactions following its use. For instance, nine of the fourteen severe reactions with supervoltage occurred in cases receiving more than 3000 r per field. I have not attempted to correlate the type of reaction with the physical factors in further detail because of the many variables.

Regarding the skin reactions, satisfactory healing has taken place eventually with few exceptions. Doctor Stone,<sup>1</sup> to whose publication I shall refer you for more detailed consideration of skin reactions, believes that increases in dosage are limited by the mucosal changes more than by the skin changes. As with the mucosal reactions, the more severe skin reactions have followed the higher daily and total doses per port. In a number of patients the end-result has been the production of a thick, fibrous, or "leather" skin. Sometimes the skin is so inelastic, and stretched over the sacrum, that some difficulty is experienced in bending over.

Other unpleasant late effects have developed after roentgen radiation. In three cases in this series, intestinal obstruction, which seemed to be independent of the spread of cancer, has occurred. It is our impression that this is much more likely to occur in patients who have had a previous laparotomy. Often in such patients there are fixed loops of bowel which, in the course of x-radiation, receive more than their share. As a matter of fact, all of the patients developing this complication had had a previous abdominal operation. This complication has also been observed in a few cases not in this series.

There have been three cases in which serious bone changes developed. In one, discovered only at autopsy, there was marked destruction of the symphysis without carcinomatous invasion. In two cases fracture of the neck of the femur occurred, without roentgenologic evidence of metastasis. The amount of radiation employed in these cases was not greater nor was the technique different in any way from the usual. Whether these bone changes were due to a direct destructive effect of the roentgen rays, or were secondary to obliterative vascular changes, is a matter of conjecture.

Six patients died as a consequence of radiation. (Table 6.) These deaths can hardly be attributed to the direct effect of roentgen rays, except perhaps the one in which no cause for death could be found at autopsy except such extreme destruction of the tumor that cancer cells could no longer be definitely

identified. In the remainder, however, sufficiently significant changes were set up to cause the patients' deaths within a few days to a month. No death has been included in which there was any suggestion that the advance of cancer alone might have been the responsible factor. Several other deaths, not included, possibly were hastened by the radiation.

TABLE 6.—Mortality

There were six deaths associated either directly or indirectly with the roentgen therapy

1. Peritonitis	1,000 kv. machine—3,476 r.
2. Heart disease, general prostration	1,000 kv. machine—3,160 r.
3. Marked degeneration of tumor	200 kv. machine—1,800 r.
4. Hemorrhage	200 kv. machine—1,500 r.
5. Urinary infection	200 kv. machine—1,700 r.
6. Intestinal obstruction	200 kv. machine—1,500 r.

Radium may have played a part in causing some of these deaths. However, two patients were not treated with radium and three others received small doses only. Placing the responsibility for the mortality upon either of the agents is of little moment. The important fact to realize is that the radiation treatment of cervical cancer carries a mortality in the neighborhood of 5 per cent.

## SUMMARY

To summarize: One hundred cases of cervical cancer in which high-voltage roentgen radiation was employed as a part of the treatment have been analyzed. Only thirty-two of these patients were treated more than five years ago. The early results indicate improvement over those obtained with radium alone. While we believe that we may infer that roentgen radiation is a valuable part of the treatment of cervical cancer, the small number of cases does not permit definite conclusions. Severe immediate reactions to roentgen radiation occurred in about one-fifth of the cases. The majority of these followed supervoltage radiation and occurred when more than 3000 r per field was given. There were six deaths associated either directly or indirectly with roentgen therapy.

## CONCLUSIONS

1. High-voltage roentgen radiation is of value in the treatment of cervical cancer.
2. Roentgen therapy carries a morbidity and mortality.\*

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\* **Addenda.**—Since this article was written, another year has passed, so that now there are fifty-eight patients treated five or more years ago. The survival rate is 39.5 per cent, a continued improvement showing up in a larger number of patients.

CONVALESCENT SERUM IN ACUTE ANTERIOR POLIOMYELITIS\*

REPORT OF A STUDY OF ONE HUNDRED SIXTY-EIGHT PATIENTS, SIXTY-NINE TREATED AND NINETY-NINE UNTREATED

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SAN FRANCISCO experienced sharply accelerated epidemic indices of acute anterior poliomyelitis in 1921, 1925, 1927, 1930 and 1934. The occurrence of the statistical rise of the cases by months varied in the different epidemic periods. For instance, in 1921 the increased incidence began in July and lasted through September; in 1925, June to September; in 1927, July to November; in 1930, August to December; and in 1934, June to August. The morbidity rate per 100,000 population was 11.41 in 1921, 11.44 in 1925, 14.94 in 1927, 35.91 in 1930, and 17.7 in 1934. The fatality rate in 100 cases reported was 18 in 1921, 17 in 1925, 13 in 1927, 11 in 1930, and 12 in 1934. It may be of interest to note that the peak of the curve occurred in 1921, in June; in 1925, in September; in 1927, in August; in 1930, in October; and in 1934, in June.

CLINICAL MATERIAL FOR THE STUDY

In the Isolation Division of the San Francisco Hospital of the Department of Public Health, in the epidemic periods inclusive, there have been admitted, treated, and clinically studied 168 patients, of whom ninety-five were males and seventy-three were females. The age distribution was from 1 to 54 years, but apparently 90 per cent occurred between the ages of 1 to 30, and the majority of these latter between 1 to 14 years. The temperature ranged from 99 to 104 degrees, the greatest number of cases showing between 100 and 102 degrees. The

\* From the Department of Public Health, City and County of San Francisco.

pulse rate range was from 70 to 130, but the greatest number of cases averaged 100 to 110. As far as the accompanying symptoms were concerned, headache was reported in 53.5 per cent of the cases; rigidity of the neck in 39.2 per cent; pain in the back in 32 per cent; muscular tenderness in 29.7 per cent, and vomiting in 48.8 per cent. The white blood cell count varied from 6,000 to 30,000, but in the majority of cases was from 6,000 to 15,000, with a differential count from 70 to 80 per cent polymorphonuclear leucocytes. The spinal fluid cell counts varied from less than 10 to 600, but in the majority they ranged from ten to twenty cells to 200. In 40 per cent of the cases, the number of cells in the spinal fluid was 40 to 100. In 56 per cent of the cases, there were noted 95 per cent lymphocytes in the spinal fluid cell count. The Pandy test was positive in 80 per cent of the cases.

The distribution of the paralysis varied, including the leg, face, abdomen, arm, shoulder, and bulbar type. Fifty-four per cent of the cases showed only leg involvement, and of these 42 per cent were bilateral. The interval between onset and hospitalization varied from one day to four weeks, but over 90 per cent were hospitalized during the first week of the illness and many cases in one to three days.

CONVALESCENT SERUM

An attempt to evaluate the effect of convalescent serum was made, inasmuch as an unusual opportunity presented itself because convalescent serum had been used only in the 1930 and 1934 epidemic periods. The number of patients to whom the convalescent serum was administered was 69, and the number not so treated was 99. The results are recorded in Table 1.

The efficacy of convalescent serum has been discussed both negatively and positively. Arithmetical comparisons of therapeutic measures are quite difficult, especially with a disease like acute anterior poliomyelitis. The use of controls appears impossible, since the similarity of symptomatology of alternate cases may be, indeed, a rarity. Moreover, there are variables in this disease as to season, to case fatality, undoubtedly to dosage and virus viru-

TABLE 1.—Convalescent Serum Treatment and Results—1921 to 1934

	Serum Given	Per Cent	Not Given	Per Cent
Cases with entrance paralysis	26	37.6	79	
Complete recovery	4	15	11	14
Partial recovery	9	35	29	36
None	7	27	27	34
Died	6	23	12	15
Early cases (entrance weakness)	16	23.1	19	
Developed paralysis	1	6	1	5
Partial recovery	8	50	12	63
No change	1	6	0	
Complete recovery	6	38	6	30
Early cases (no entrance weakness)	27	39	1	
Recovered without paralysis or weakness.	69	41	99	59



lence in epidemic periods. Likewise, do variables occur as to antibody content in the convalescent serum that is used. The question which naturally arises is whether a patient having any clinical type of the disease, or in whom the disease has progressed to the paralytic state, can be benefited by definite dosages of convalescent serum? A critical review of the table apparently answers these questions as to the effectiveness of convalescent serum, since the initial dosage employed was generally 50 cubic centimeters and in some cases increased to 150 cubic centimeters. In the table, the cases with entrance paralysis show little or no variation between the treated and untreated in percentages of partial or complete recovery, or death. Among those considered early cases, but with entrance weakness, the percentages of partial or complete recovery show equally small or no variations in the treated and untreated. The early cases with no entrance weakness or paralysis, however, indicate that a different viewpoint can be stressed. The pre-paralytic cases (twenty-seven) when treated with convalescent serum recovered without any residual paralysis. Therefore, in this series of cases of this type or in early cases of acute anterior poliomyelitis with clinical and laboratory evidence substantiating the diagnosis, it would appear that convalescent serum is of benefit.

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### MENINGOCOCCIC MENINGITIS: ITS TREATMENT\*

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THE treatment of meningococcic meningitis with antiserum had been developed almost to the point of a routine when the introduction of antitoxin served to reopen the question; and the still more recently discovered potency of sulfanilamid in this disease has suggested even more questions as to the most effective approach to the problem. It was in the hope of shedding some light on these matters that the results of each mode of treatment on groups of patients seen within the past two years have been summarized.

#### MATERIAL FOR THE STUDY

Before considering the individual groups, a few comments on the entire series are necessary. In the first place, although this report must deal in terms of percentage, it is fully realized that the series is far too small to have statistical significance, and it is hoped that additional cases may make possible more final conclusions. In all in-

stances the diagnosis was confirmed by culture of the organism. All patients seen are included, except those dying within twenty-four hours without evidence of serum reaction; all "serum deaths" are included, regardless of duration. Omitting the twenty-four-hour deaths, there remain a total of 109 cases. Most of the patients were older children and adults, infants being so few as to make age grouping useless. The duration of illness before admission to the hospital was almost invariably three to four days; such variations as did occur seeming to have no relation to the outcome. Nor did the presence of septicemia, along with spinal infection, seem to be of importance, the mortality being about the same in either case. Type III of the organism, along with Type I-III, accounted for about half of the total cases, and for considerably more than half of the total mortality; this tendency toward greater virulence appeared about equally in the different treatment groups. It may also be of some interest that permanent sequelae, so often mentioned in the textbooks, was decidedly uncommon in this series, there being only two instances of deafness and one of blindness in the entire group.

#### ANTISERUM

Antiserum alone was used in thirty-three cases, with eighteen deaths or a gross mortality of 55 per cent. Five of the eighteen deaths occurred under circumstances which indicated that the serum was, at least to some extent, responsible for the outcome. This incidence of fatality to serum reaction seems unduly high and, of course, cannot be determined beyond question; but the clinical evidence was so strong that we are obliged to consider these as "serum deaths." If we may exclude these cases in order to deal only with those in which the efficiency of treatment may be evaluated, then the remaining twenty-eight cases may be divided into (a) those receiving serum by vein only, (b) those treated both intravenously and intrathecally, and (c) those treated exclusively by the spinal route.

The first group, twelve in number, was intended as a control for the antitoxin group, with the belief that if immune bodies from antitoxin can reach the meninges from the blood, those from serum can do likewise. Of this group, nine recovered and three died, giving a mortality of only 25 per cent. The duration of illness in patients recovering, from admission to the beginning of normal temperature, averaged eight days; the duration of fatal cases was 2.6 days. The total dosage of serum in recovered patients was, on the average, 270 cubic centimeters, and in fatalities 155 cubic centimeters.

The second group, numbering fourteen patients, accounted for most of the mortality of the entire serum-treated group, there being only three recoveries and eleven deaths, or a mortality of over 78 per cent. The recovered patients took seventeen days, on the average, to reach normal temperature, while those who died survived for an average of seven days. It should be noted that this group includes some patients originally in the preceding one, in whom progress seemed unsatisfactory, and who, therefore, were given treatment by both routes

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in the hope of a better result; thus, they probably represent somewhat more severe infections. This fact, however, seems hardly an adequate explanation of so great a disparity in results, and one is forced to question the wisdom of routine administration of intrathecal serum; the more so, in view of the fact that the cases recovering in this group received more serum by vein and less into the spine than did those who died, the average dose in recovered patients being 325 cubic centimeters by vein and 67 cubic centimeters intraspinally, compared with 237 cubic centimeters by vein and 136 cubic centimeters intrathecally in the fatalities.

The third group, treated only with injection into the spine, includes only two patients and would seem to have no real significance. Both of these were mild, and although fever persisted for an average of eleven days, their condition was never clinically alarming.

#### COMMENT

The methods and dosage used in all serum-treated patients were those ordinarily employed in most hospitals, except that we have perhaps made greater use of the cisternal route. It has been our custom in this regard to alternate between the lumbar spine and the cistern, injections being made about every twelve hours at first. Iodids were given to all patients receiving intrathecal serum. Intravenous serum was given every twelve hours until cultures of spinal fluid became negative, in doses of about 60 cubic centimeters for an adult. In all instances the various sera available were immediately tested to agglutinate the patient's own organism, and thereafter only the serum with the highest titer was used. This attempt to select a specific serum is admittedly inaccurate and may even be misleading; but agglutinins are the only order of antibodies which can be measured with sufficient speed and accuracy for clinical purposes, and clinical results seemed to warrant the effort.

The five instances of very severe or possibly fatal reactions to serum call attention to the very real danger of the treatment itself, especially when given by vein. Our efforts to prevent serum reactions by the conventional methods of desensitization have been uniformly disappointing, and treatment after the emergency has arisen has also been difficult and unsatisfactory.

#### ANTITOXIN

Antitoxin alone was used in twenty-one cases with six deaths, including one "serum death," or a gross mortality of 28.6 per cent. Patients recovering took an average of nine days to reach normal temperature; deaths occurred in 4.6 days. This statement appears to give antitoxin a greater advantage over serum than we believe it should have, as several reactions of such severity occurred, as to make us regard our single death as good fortune. Antitoxin was given almost entirely by vein; the few instances in which small amounts were given into the spine seemed to offer no advantage. It was always given well diluted with normal saline, by slow gravity injection (sixty drops per minute). The initial dose was 100,000 units for adults, down

to 50,000 units for children; the dose was repeated daily if it seemed necessary. Our total dose was lower than that used by some workers, being an average of 187,000 units in recovered patients and 260,000 units in patients dying.

#### SULFANILAMIDE

Sulfanilamide treatment was begun rather dubiously, and for a time was given only to patients apparently not doing well on other methods. To date, twenty patients have been treated with sulfanilamide alone, or with insignificant doses of serum or antitoxin. Of these, eighteen recovered and two died, one of the two deaths being apparently due to other preëxisting causes, as no evidence of meningitis was found at autopsy. One of the recovered patients was readmitted with a relapse. The organism recovered at this time was experimentally resistant, both to sulfanilamide, and to serum, but nonresistant to the combination of both; it was, therefore, treated with both preparations and made a prompt recovery. The duration of illness in recoveries was eight days; that of fatalities was undetermined because of the long course of the patient dying of other causes. Thus, so far as this series can show, sulfanilamide is, obviously, superior both to serum and to antitoxin in therapeutic efficiency; and so far as we have seen, it offers relatively negligible risks when used with proper precautions. The other patients receiving this drug will be considered with the group under mixed treatment.

Sulfanilamide was given subcutaneously in one per cent solution in normal saline. The first dose, figured at 15 grains (or 100 cubic centimeters of solution) for each twenty pounds of body weight, was given at a single dose; thereafter, the same amount was divided into two doses, given at twelve-hour intervals until the patient could take it by mouth. Then a dose of about one-third the original amount was given daily in divided doses until about ten days after the first negative culture. Though it can be given intrathecally, there has seemed no particular reason for doing so. To prevent acidosis, one-sixth molar solution of sodium lactate (10 cubic centimeter to each 100 cubic centimeter of sulfanilamide solution) was given concurrently with the sulfanilamide, but in another site. When the oral route was used, sodium bicarbonate was given in amounts equal to the sulfanilamide.

Under this treatment the spinal fluid cell count and globulin were found to return to normal steadily and very rapidly, as contrasted with intrathecal therapy when both remain high even after the organisms are gone. An unusual observation sometimes made, whose explanation we do not know, was that organisms could be found on direct smear from convalescing patients' spinal fluids, but they would not grow on cultures. This remained true even after repeated washings to remove sulfanilamide.

Possible complications of the drug are numerous. More or less severe cyanosis is to be expected with doses of this size, but in most instances this did not seem to inconvenience the patient, and seldom called for a change in the plan of treatment.



Acidosis generally occurs unless prevented as indicated; this possibility should be further guarded against by daily urinalyses. Acute hemolytic anemia is to be watched for closely; one of our patients showed a fall of hemoglobin from 75 to 40 per cent in two days. Agranulocytosis also may occur, and, like the anemia, may be anticipated through daily blood examinations. Slight jaundice occurred in a few instances, which cleared quickly when the treatment was stopped or drastically reduced. Vomiting, fever, and rash have been found, but never sufficient to interfere with treatment.

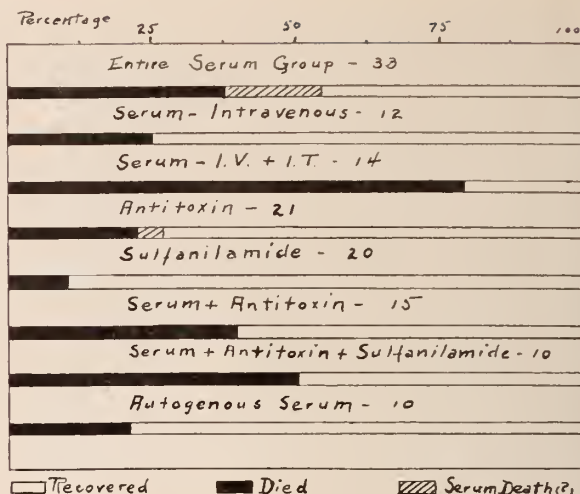
#### AUTOGENOUS SERUM

Autogenous serum, derived from the patient's own blood and injected into his spine, showed decided merit in a few selected instances in which the patient had responded to more conventional therapy in such a way as to indicate strongly that a chronic meningitis was to be the end-result. These patients may be assumed to have a considerable amount of highly specific antibody within their own blood streams, inasmuch as they have either avoided or recovered from meningococcic septicemia. Their own serum is unable to work a cure at this late stage because of choroid block following long inflammation, making it necessary to introduce the serum mechanically. Our series provided ten such instances; in each of these the patient showed considerable clinical improvement and a partial return to normal spinal fluid findings under treatment with serum or antitoxin, or both, but the cultures of spinal fluid remained persistently positive. In eight of these cases the cultures promptly became negative after intraspinal injection of autogenous serum; the other two patients finally died.

#### MIXED THERAPY

The mixed therapy group is hard to evaluate, being obviously composed of patients not responding, or at least clinically appearing not to be responding, to one means of treatment; and who, therefore, were given a different one in the hope of saving life. One cannot be entirely certain that the original treatment could not have succeeded, nor that recovery following a change of treatment was due to the change. Assuming, nevertheless, that the clinical indications for a change of treatment were valid, the results were as follows: Out of fifteen cases so handled, nine recovered and six died. Among the deaths, or failures of both methods, four received antitoxin first and were changed to serum, while the other two reversed this order. Seven of the nine recoveries showed no response to antitoxin, but recovered on serum; one serum failure and one sulfanilamide failure recovered on antitoxin.

In addition to the above fifteen patients, there were ten others who made little progress on either serum or antitoxin, and who were given sulfanilamide as a third alternative. Of these, five recovered and five died. It is even more difficult to interpret this group, as the fact that they remained sick long enough to be treated by three different methods throws doubt on any correlation of procedure and results.



#### IN CONCLUSION

As previously pointed out, this entire series is too small for statistical value, and its component groups have even less significance from that angle. Also, it is evident that clinical judgment—a variable and all too fallible factor—has permeated the entire study. Nevertheless, some deductions may be made which are at least suggestive, and which may serve as guides in future work.

In the first place, it is evident that no treatment for meningitis now available is ideal, and that no method excels in every case. We do not yet know how to choose the most perfect approach for the individual case, but must stand ready to change treatment when results are not forthcoming within a reasonable time.

Antiserum, long our only weapon, still stands comparison with the newer antitoxin when given by the same route; but, in our opinion, intrathecal administration should in general be avoided. As previously mentioned, our very poor results with intrathecal serum may be due at least in part to an assumed greater severity of infection in these patients; but, even so, we are not impressed that the desperate situation is much improved by intrathecal serum with its admitted meningeal irritation and tendency to favor block. An exception is made in those few instances in which autogenous serum is indicated; incidentally, the meningeal irritation caused by it is relatively less than that of horse serum. Also, in our experience, antiserum offers the greatest hazard of alarming and even of fatal reactions to treatment.

Antitoxin falls short of the efficiency originally expected of it, but it still shows a high degree of potency. Fatal reactions to treatment seem less likely to ensue than with serum, although we feel that in a larger series of cases this outcome might appear more often than we have found it.

Autogenous serum is of great value in an occasional instance refractory to other means of treatment. Its value presumably lies in its high specificity and increasing titer due to longer illness, and its use in no way supersedes any of the other preparations.

At present, sulfanilamide is our first therapeutic weapon. Results with it have been much better

than with either antiserum or antitoxin, and have been obtained in less time. Although no one in the least acquainted with it would call it innocuous, we have found its reactions fewer and easier to combat than those of the other two preparations. With appropriate safeguards as outlined, fatalities due to the drug should seldom occur. Thus, it seems more nearly to fulfill the requisites of any form of medication: high efficiency and low toxicity.

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## SURGICAL IMPORTANCE OF PAPAVERIN HYDROCHLORID\*

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**INTRODUCTION.**—Papaverin is not a new pharmaceutical entity. Many of its most important properties were originally described by Merck<sup>17</sup> in 1848. Additional studies have been made since then by both Pal<sup>18</sup> and Macht.<sup>15</sup> Papaverin is one of the primary alkaloids of opium, comprising 0.2 per cent of that complex substance. This alkaloid is not a derivative of morphin. The empirical formula of papaverin is  $C_{20}H_{21}O_4N$ . It is only slightly soluble in warm alcohol. However, the salts of papaverin, preferably the hydrochlorid, are sparingly soluble in water and normal saline. This alkaloid has been prepared synthetically in Germany, under the name of "Eupaverin," but the preparation is only slightly soluble in the usual vehicles.

### PHARMACOLOGY

Macht<sup>15</sup> summarized the pharmacologic properties of papaverin as follows: Papaverin directly stimulates the mammalian myocardium, causing a bradycardia with an augmentation in its tone. This leads to an increase in the volume output of the heart and in the strength of its contractions. The coronary arteries are markedly dilated. Blood pressure is lowered because of a vasodilatation of the distal arterioles. The most marked vasodilatation occurs in the arteries and arterioles of the splanchnic bed and in those at the periphery of the body. This drug also increases alveolar ventilation and the volume output of the respirations. Macht<sup>15</sup> demonstrated that papaverin produced a remarkable relaxation of all mammalian smooth muscle for about six hours. This effect was most noticeable upon the media of arteries, various sphincters, ureters, urinary bladder, gastrointestinal tract, biliary system, and the tracheo-bronchial tree. The analgesic properties of codein and papaverin are said to be nearly equal, while 40 milligrams of papaverin have about the same effect as 10 milligrams of morphin. However, papaverin is less depressant upon the higher cerebral centers. Pal<sup>18</sup> states that the maximum single safe dosage of papaverin that may be administered subcutaneously is one gram. Macht<sup>15</sup> and Pal<sup>18</sup>

agree that dosages, varying from 40 to 80 milligrams and given subcutaneously, may be repeated daily with safety. The body metabolism has little effect upon this alkaloid, and it is excreted unchanged through the urine and bile. Solutions of papaverin hydrochlorid deteriorate after standing for several months, so care must be used to possess a fresh pharmacologically active preparation, ready for instant use.

### HISTORY

Papaverin elicited very little general interest from the medical profession until 1934. Prior to that year it had been occasionally used empirically in the treatment of upper respiratory infections with some success. During 1932 Gosset, Bertrand, and Patel<sup>11</sup> revolutionized our basic conceptions in respect to arterial embolism. They demonstrated, by animal experimentation, that an embolus became fixed at its point of ultimate lodgement from a localized spasm of the intrinsic smooth musculature of the artery itself. Other investigators promptly confirmed their results. Thus a widespread search was instituted for some preparation that would be both a prompt and a long-continued smooth muscle antispasmodic, but yet one whose toxicity was quite low.

This led Denk<sup>8</sup> in 1934 to experiment with papaverin. Ten of his patients, suffering from various types of arterial embolism, were treated by the intravenous injection of papaverin hydrochlorid in half-grain doses, which were repeated within two hours, if circumstances dictated. Sixty per cent of his patients recovered. One other individual, suffering from a massive postoperative pulmonary embolism, was similarly treated, with a complete recovery. Denk<sup>8</sup> thus decided that the final results of this new method of medical treatment were actually superior to the generally anticipated results following an embolectomy. Allen and MacLean,<sup>2</sup> de Takáts,<sup>6</sup> and McKechnie and Allen<sup>14</sup> promptly substantiated Denk's<sup>8</sup> contentions in regard to papaverin.

### RESULTS FOLLOWING EMBOLECTOMY

Allow me briefly to recapitulate some of the final results following an embolectomy. Strömbeck<sup>21</sup> collected 327 arterial embolectomies that were performed between the years of 1912 and 1932 in Sweden upon the greater circulation. Sixty-three per cent died in the hospital. Only 3.2 per cent of those dismissed from the hospital with a good circulation were alive three years later and were working steadily at their former occupations. In 286 embolectomies described in the literature, Pearse<sup>19</sup> found that only 48 per cent were alive one month postoperatively. Allen<sup>1</sup> surveyed the literature and learned that only between 25 and 30 per cent of all embolectomies were successful. Danzis<sup>7</sup> studied 119 embolectomies: 41 per cent temporarily were successful, but 25 per cent of these were dead from subsequent new emboli before eight months had elapsed. Hindmarsh and Sandberg<sup>12</sup> reported upon forty-five embolectomies performed between 1912 and 1934 at the Maria Hospital in Stockholm. Some 77 per cent of these individuals had chronic heart disease. Seventeen patients (37.7 per cent)

\* From the Department of Surgery, College of Medical Evangelists, Los Angeles. A final report.

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discharged as well were followed, and only seven (40.0 per cent) were found to be alive, most of whom had severe cardiac disease. The final end-results of the Trendelenburg<sup>22</sup> pulmonary embolotomy are still more discouraging. Eichelter<sup>10</sup> reported that only 7 per cent of 123 instances of the Trendelenburg pulmonary embolotomy fully recovered.

#### SURGICAL CONDITIONS BENEFITED BY PAPAVERIN THERAPY

**A. Arterial Emboli.**—In 1936, Denk<sup>9</sup> described his further experiences with intravenous injections of "eupaverin." Sixty-eight per cent of the cases of embolism of the arteries of the greater circulation temporarily recovered, while 77.6 per cent of instances of severe massive postoperative pulmonary embolism, similarly treated, were able to resume their former occupations. All investigators insist that, for effective results, papaverin hydrochlorid must be injected immediately after the onset of an embolism. Minutes really count in this complication, and delay leads to very discouraging results. It must be stressed that, in treating any arterial embolus, immediate emergency surgical preparations should invariably be made for the possible performance of an embolotomy. While these are being done, papaverin hydrochlorid is administered. If any beneficial effects are to be obtained, they will become manifest usually within five to ten minutes.

The author,<sup>3</sup> in 1936, presented a preliminary report on ten individuals suffering from proved severe postoperative pulmonary embolism. They were treated with intravenous injections of one cubic centimeter ampoules of "Spasmalgin" (Hoffman & LaRoche), which contains one-third grain of papaverin hydrochlorid. One male died from a bacteremia, complicating a severe bilateral bronchopneumonia. This was a mortality of 10 per cent. In 1937 an additional report<sup>4</sup> was made upon a total of seventeen cases having had pulmonary emboli. Two patients succumbed, or a mortality of 11.7 per cent. The fifteen persons of these two preliminary reports have now remained in good health for varying periods, ranging from ten to thirty-six months, and most of these individuals are working full time at their former occupations.

A definite distinction must be drawn between instances of emboli of the pulmonary and the general circulations in respect to their etiology and ultimate prognosis. Pulmonary emboli usually originate from a bland thrombophlebitis of the veins of the lower extremities or of the pelvis, resulting as a complication of abdominal operations, performed upon aged, obese or hypotensive individuals. If they survive the immediate episode of the pulmonary embolism and its grave temporary complications, their prognosis as to longevity is quite good. On the other hand, emboli of the greater circulation originate in a diseased left heart or in the aorta and its branches. If the first embolism is survived, new emboli are usually formed and the patient soon dies from other new embolic complications elsewhere. Thus, if medical measures will afford complete relief from the first em-

bolism, they should be given preference, in view of the usually final poor prognosis in these patients.

In 1937, a preliminary report<sup>5</sup> was made concerning seven persons who had emboli of the greater circulation. They were treated with spasmalgin. One immediate death occurred in a markedly arteriosclerotic male, age seventy-one years. He first presented himself for care twenty-eight hours after the onset of an embolism in the right popliteal artery. Papaverin therapy was a failure, and it was too late for the performance of an embolotomy. A subsequent amputation became necessary, but the patient died from pneumonia on the fourth postoperative day. This was a mortality of 14.3 per cent. At the time of that report three others had subsequently died (42.7 per cent), two being in very poor health. Only one male was apparently well. In the interval of the past seven months since that report, six individuals have succumbed (85.6 per cent).

Today, I wish to summarize my experiences with various arterial emboli. A total of thirty-six instances of severe massive postoperative pulmonary emboli have been treated intravenously with preparations containing papaverin hydrochlorid. Seven persons died, a mortality of 19.5 per cent. The remaining twenty-nine patients are in good health. Twenty-three (64.2 per cent) are working full time at their regular occupations. Fifteen instances of emboli of the general circulation have been similarly treated, chiefly by intra-arterial injections of papaverin hydrochlorid, proximal to the site of the embolus, as was originally advocated by Leiner<sup>13</sup> in 1937. Nine patients, or 60.0 per cent, have now died; however, only three of these succumbed as the immediate result of their first embolus. The other six deaths were attributable to either subsequent new emboli or from cardiac complications. Two males are now in poor health, but the remaining four patients (26.6 per cent) have so far remained well.

In these fifty-one instances of arterial emboli there were seven failures, in which no effect was obtained from the use of papaverin hydrochlorid. Five of these deaths were in emboli of the general circulation, and were first seen between thirteen and thirty hours after the occurrence of the embolism. Two cases of postoperative pulmonary embolism were not helped. One male was in an agonal stage when first seen and died as the injection was started. In all fairness, it must be admitted that possibly some of these cases would have recovered without any treatment, but at present there are no criteria available by which one can recognize such a favorable outcome.

**B. Ureteral and Common-Duct Spasms.**—Patients suffering from calculi in either the ureter or the common duct may, by the intravenous injection of a half-grain of papaverin hydrochlorid, receive prompt relief from their severe pain. Some calculi may be spontaneously passed from the ureter or the common duct following this therapy. This dosage may be repeated within two hours if symptoms warrant. The rare case of true biliary dyskinesia, as has been so excellently described by Mentzer,<sup>16</sup> should be better and more safely treated

by this alkaloid. Four patients of this type have been so treated. Three had calculi of the common duct, and the prompt relief of their distressing pain was very dramatic. One individual had a small ureteral stone, which he was enabled to pass into the urinary bladder with very little discomfort.

#### IN CONCLUSION

1. Papaverin hydrochlorid is of value to surgery under the following conditions:

(a) In instances of arterial embolism, papaverin hydrochlorid is a proved safer and more effectual method of therapy if injected immediately after the onset of an embolism. This therapy is superior to most end-results of embolectomy. Its field of greatest usefulness is chiefly in instances of severe massive postoperative pulmonary embolism, where more lives will be saved with this therapy.

(b) The severe pain of ureteral and common-duct spasms, either with or without calculi, is often dramatically relieved.

2. In thirty-six instances of severe massive postoperative pulmonary embolism, treated by intravenous injections of papaverin hydrochlorid, seven patients died—a mortality of 19.5 per cent. Twenty-three, or 79.1 per cent, of the twenty-nine surviving individuals are today fully recovered and are back at their former occupations, working full time.

3. In fifteen examples of emboli of the general circulation, mostly treated by intra-arterial injections of papaverin hydrochlorid proximal to the site of the embolus, only three patients died as an immediate result of their embolism—a mortality of 20.0 per cent. However, six more persons have since succumbed, increasing the mortality to 60.0 per cent. Only four patients (26.6 per cent) are still apparently well.

4. The necessity for the inclusion of papaverin hydrochlorid solutions in one's emergency medical bag, and as part of the emergency tray on every surgical floor of a hospital, is obvious and needs no further elaboration.

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#### OCCUPATIONAL DERMATOSES IN THE AIRCRAFT INDUSTRY\*

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LET us turn back the pages of history to the year 3500 B. C. where, in a little Egyptian village, Etana, a shepherd boy made the first flight in aviation history—on the back of a great male eagle with a wing span of eight feet. The purpose of the flight was to discover the secret of birth which had been lost for many years. A prize was to be offered by the ruler of the country to the person uncovering the secret. While Etana was tending his flock one day, so the story goes, a great eagle, apparently wounded, the largest he had ever seen, fluttered to the ground at his feet. The boy felt sorry for the wounded bird, dressed his fractured wings and nursed him back to health. As a reward for his services the eagle allowed him to take off with him whenever he flew into the sky; and thus Etana, sitting proudly on the eagle's back, set out in quest of the famous secret of birth, which he later discovered.

Historians, too, say that, in the year of 2200 B. C., a Chinese emperor placed his son, who had displeased him, in a burning tower to die. The boy, with two umbrellas, one in either hand, jumped from the burning tower and was saved; and so the first parachute jump in aviation history was made.

Again, Archylas, in 400 B. C., made a wooden pigeon that flew mechanically, then Archimedes founded the law of floating bodies; and when Isaac Newton discovered the law of gravity, the fantastic

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dreams of the past became realities. Thus, the historical groundwork of aviation had started.

However, it was not until the year of 1783 that the second flight of importance was recorded. Doctor Jeffries and Jean Blanchard made the first crossing of the English Channel in a free balloon. Later, Napoleon used balloons for observation purposes during his wars.

#### WRIGHT'S CONTRIBUTION

In 1908 Wilbur Wright, founder of American aviation, started people thinking about the future of the industry, until today, in all parts of the world, the wheels of aviation industry are revolving, innumerable men are employed, thousands of planes are being constructed annually, and plants covering hundreds of acres equipped with all of the latest machinery for the manufacturing of airplanes have been installed.

With the European war scares constantly before us, and the need of national defense uppermost in our minds, all nations are becoming more and more air-minded. Practically all American and European defense plans are associated with the aviation industry. Is it any wonder, then, that under such conditions described, aviation industrial medicine as a science should come into being?

#### EXPERIENCE IN A SAN DIEGO PLANT

Approximately five years ago the Consolidated Aircraft Company of Buffalo, New York, moved into their new home at Lindbergh Field, San Diego. They built one of the most modern plants in the industry. Acre after acre of ground was covered with steel, sky-lighted buildings and the work of installing modern machinery began. Approximately five thousand men were employed at the peak, and apparently the same number will soon be back again on the job.

At the time when architects were planning the buildings, the Aetna Life Insurance Company was organizing their medical set-up to handle the compensation end of their program. Fortunately, the medical director of the company placed upon their panel a dermatologist, whose duty it was to directly supervise the skin problems which might arise. An important point in the medical organization was, that when a skin lesion was discovered by the first-aid department, that department should at once notify the dermatological consultant. This plan has been followed with a great deal of success through the years, thus eliminating duplication in diagnosis and in treatment. Of course, at all times we had at our disposal the advice of an industrial medical expert, Dr. T. P. E. Gocher, who conferred with us constantly on all our difficult problems.

#### PERSONNEL AND PROCEDURE

Our first-aid department is headed by a man trained in medicine—a retired chief pharmacist mate—who has had thirty years' experience in the hospital corps of the United States Navy. He has aided us materially in carrying out our project, and has cooperated with us in every way. He prepared, labeled, and classified more than one hundred different allergens which are used for testing, and

are filed in my office. He is constantly on the lookout for skin lesions among the employees. If, as he makes the rounds of the factory, he notices any dermatologic cases, he reports them immediately to my office. We then make out our reports in triplicate: one going to the local office of the company, one is sent to the home office, and one left with me. The patient, upon arrival at my office, is given a complete dermatologic examination, which includes: history, physical examination and laboratory examination, with special emphasis upon the contact theory of causation of the disease. All of the patch tests are made in the same environment as that found during work; therefore, if the employee perspired freely, a patch was placed on him and left there while he was working and sweating. Many times positive results were produced in this manner, whereas previously negative results were given when tested on nonsweaty skin, and through this method we have traced the causative factors which is important from the standpoint of ultimate treatment.

Dermatologists have for many years recognized injurious skin occupational hazards from the standpoint of patient and the company economically. This subject has been a vital one in all industries, yet very little has been written on occupational hazard in the aviation industry. With that idea in view, I decided to study the records of occupational hazard findings at the Consolidated's plant.

A careful statistical report was made of a series of cases which were definitely proved to be occupational in nature by all recognized methods. We all agree with Dr. Louis Schwartz,<sup>1</sup> who says "most occupational skin diseases are caused by alkalies, acids, oils, solvents, dyes, and plants." I found my series of cases running true to form. He also maintains that the structure and secretions of the skin are factors of susceptibility, also that cornification of the horny layer of epithelium makes the skin impervious to water, alcohol and certain acids, but is usually susceptible to the action of alkalies. I found that in our series of cases the  $p^H$  of the perspiration played an important part in both aiding and retarding chemical irritation. All symptoms were exaggerated on highly acid skins.

#### PREDISPOSING CAUSES

One of the predisposing causes in industrial dermatitis is the lack of personal cleanliness; however, in many jobs, this fact cannot be helped. For example, the machine shops, where men must work in grease and oils, metal and dust. Another important factor which was found in all our cases was a hypersensitivity of the central nervous system. Most patients showed an imbalance between the central nervous system and the sympathetic nervous system. This fact has been proved by no less an authority than Doctor Kennedy, Professor of Neuropsychiatry at Cornell University. The lethargic types rarely complain of skin difficulty from the hazard standpoint.

#### COMPENSATION ANGLES

Because of the compensation angle it is important to determine definitely whether the patient

is a compensation case, and so a fixed diagnostic routine must be followed. Most of the patients we have seen complained of their original eruption appearing on such exposed surfaces as the hands, arms, face, and neck. Though, at times, fumes, oils and dusts, also powder and finely ground-up chemicals, may enter the clothing and cause skin trouble. In all our cases the problem of tinea was ruled out, they being declared by the medical director as non-compensable, as well as all other nonoccupational diseases which, according to Downing, are classified in his paper.<sup>2</sup> Fortunately, many persons working in the industry gave a history of recurrent trouble, but with the recurrence a gradual subsiding of symptoms resulting ultimately in an immune state developed. We, of course, in our factory, change to some other department the occupation of the person affected, the plant being very cooperative in this respect. Thus a man, sensitive to dope, is transferred from the paint shop to another portion of the plant where no dope is used.

We all know that the ideal method of treatment of hazard cases is to prevent the allergens to which a person is sensitive from coming in contact with the individual. However, this is impossible in large plants, although impervious dressings are applied and gloves worn in all cases when practicable. Hygienic lectures are given. All persons suspected of a contact susceptibility are advised to apply olive oil on uncovered parts before going to work. Possibly an ideal situation could be brought about through patch-testing all applicants in hazardous occupations, but this plan has never been carried out successfully. However, the time is coming when patching will be as important to the industry as finger printing is to criminology.

#### QUESTIONNAIRE REPLIES

Hoping that I might gather additional knowledge concerning occupation-hazards disease in aviation, I sent a questionnaire to the medical directors of six of the ranking airplane companies, namely, Douglass, the largest in America, employing approximately 8,000 to 10,000 men; Boeing, with from 2,000 to 6,500; Consolidated, with approximately 5,000 to 7,000 men at capacity; Lockheed, having 3,000 to 5,000; Martin, engaging 1,000 to 3,000; Sikorsky, employing 1,000 to 3,000 men; and Curtiss, keeping 3,000 busy. I felt that this group of companies would give me a cross section of the aviation occupational disease in America, since they employed, at the peak of the business, approximately 60,000 men. However, I have not enumerated in this list hundreds of plants like the Ryan aviation plant in San Diego, the Solar Aviation Corporation of San Diego, etc.

The conclusions drawn from answers received from the different companies are as follows: Most of the companies have no definite dermatologic consultant hooked up to the industrial medical program and were, therefore, not especially interested. Some have only a graduate nurse in charge of the first-aid department. Dr. Dwight Curries, industrial surgeon of the Glenn L. Martin Company, during the year 1938 did not report one case of occupational dermatitis. Isabel Witt, R. N., First-

Aid Department, Boeing Aircraft Company, reports only a few cases of dermatitis in the machine shops attributed to machine oil, which condition never remained serious. Dr. Paul Smitgen reports but a few cases in the North American Aviation Company; however, he discovered several cases found at the Interstate Aircraft and Engineering Corporation due to exposure to heavy oils having a chlorin base. All apparently reacted to chlorin. At this point, I may say that all of the halogens are chemical occupation hazards. Several companies were not interested enough in the project to answer my questionnaire. The lack of definite findings from the aviation companies is due to the fact that most of the factories corresponded with are not as dermatologically minded as we are.

In order to have a smoothly running organization all parts must synchronize. At our plant we received the cooperation of the plant officials, the first-aid department, the personal director, the medical director and the adjuster for the insurance company. Without this cooperative effort we could never have cut down our occupational skin hazard liability to the point where the insurance carrier is happy, as well as the airplane company who must pay premiums in proportion to the number of cases on the sick list.

#### INDUSTRIAL DERMATOSES

By discussing cutaneous eruptions among those employed in the aviation industry, I am debating an old-new subject. Old, because the origin of industrial skin states dates back to the year 1700 when, Ramazzini, the father of industrial hygiene, described accurately dermatoses occurring in washerwomen, bakers, farmers, and mechanics; while, in 1775, Pott of London discussed chimney-sweeps' cancer, and Robert William, another Englishman, discussed psoriasis in bakers and eczema in washerwomen. Later, in America in 1896, Dr. James C. White read before the American Dermatological Association a paper on dermatitis venenata. My subject is new, because aviation industrial dermatology has become a factor in this modern industry, due to the present activity in the aviation wing of our national defense program.

#### DURALUMINUM

In recent years the industry has developed a metal material used in plane construction which weighs very little and yet is tremendously strong. That metal, called duraluminum, is a composite alloy made by the Aluminum Company of America, consisting of the following ingredients, which are all melted together at high temperatures, namely, aluminum 95.5 per cent, copper 3.5 per cent, magnesium .5 per cent, manganese .5 per cent, and a trace of silicon .1 per cent. This metal, covered as it is with fish oil, brought into contact with the uncovered surfaces of the body of workers, drilling, riveting and sawing the material, will at times produce a severe dermatitis. Men coming from work in northern plants tell of innumerable cases of dural poisoning which breaks out in a maculovesicular rash on the uncovered body surfaces. The



men employed in aviation factories all know what dural poison is.

According to Francis C. Prary, Director of the Aluminum Research Laboratory of the Aluminum Company of America, there could be no reaction on the skin from duraluminum or any of its component parts. He substantiates his remarks by definite proof. Therefore, he maintains that the dermatitis we observe among all workers is due to some other material. He, however, suggests that many times chromic acid, which is the anodic coating of aluminum, is frequently used by aircraft manufacturers, and thereby a workman could receive a chromic acid dermatitis. He also states that in many of the operations aluminum oils are used as lubricants to protect the metal. This, of course, is the case. Many times the dural plates are saturated with commercial fish oil.

#### RÔLE OF FISH OIL

The hint which started us on the road to uncovering the real cause of our allergic states came from Doctor Prary, who suggested that fish oil might be the offensive agent in most of our dural dermatoses, because clean-washed dural shavings never have given us a positive patch reaction, while mixing the shavings with commercial fish oil always did. Doctor Gocher, the medical director of Aetna Life Insurance Company, suggested the fact that all commercial fish oils were laden with bacteria. This fact was proved by laboratory counts. Thus, we have our infected fish oil coming in contact with an abraded skin which could easily, in a hypersensitive person, produce a severe dermatitis. This explains the pyogenic dural dermatitis which is seen so often.

#### SCHWARTZ' STUDIES

I received a great deal of help on the subject from reading Dr. Louis Schwartz' reprints on "Skin Hazards in American Industry," Public Health Bulletin, Nos. 215, 229. After careful survey of his material, I found that his chapter on paint, varnish and lacquer fitted into our picture at the plant. However, aviation dermatology was not deeply considered. Doctor Schwartz, in his new book on occupational diseases of the skin, will have a chapter devoted to skin diseases found in the aviation industry.

In a letter received from Doctor Schwartz' office, he says, "The greatest skin hazard in the manufacture of airplanes occurs in the paint shop." I agree with him that several of my patients gave positive patch reactions to different forms of thinner, dope, special formulae, lacquers, fumes, varnishes, solvents, driers, asphalt, dyes, and oils which were used in our paint shop, but by far the greatest number of the cases found in our factory have been those associated with fish oil and dural.

In the machine shops, cutting-oils constitute the main occupational hazard, associated with the dural-fish oil hazard. Neutral petrolatum, diluted with a little free sulphuric acid, is used on the saw in cutting the metal. I have seen sulphuric acid and oil allergic cases. The fine metal parts combined with grease and dirt produce skin hazard dermatitis. Many cases of furunculosis have been found

among our men working with drilling machines. The sand blasting, buffing and polishing departments report skin cases caused by contact with acids, iron oxid, emery, rottenstone and chrome polishing agents which are constant offenders.

In my series not one case of dermatitis due to wood was noted, though many men are working in the carpenter shop. Doctor Seneer's fine article<sup>3</sup> prompted me always to eliminate wood dermatitis from my series. However, we must remember that, as the modern airplane is designed for all-metal construction, the wood hazard among aviation factory workers is negligible.

#### REPORT OF CASE

CASE 2.—Mr. R. E. M., tool department, Consolidated Aircraft Corporation.

*History.*—Erythema eruption, maculo-vesicular area about the size of one-half palm of hand on anterior aspect of left wrist. Maintained eruption due to continual bombardment of dural filings from sawing dural. He had the same trouble while working in the machine shops at the Douglass plant. Diagnosed his own case as dural poison, which was proved correct. No history of attack prior to working in the industry. Neurotic type. Hypersensitive reflexes. Nervous.

*Symptoms.*—Subjective—Itching, burning, and smarting. Small amount of pain. Otherwise he was in perfect health. Objective—Erythematous maculo-vesicular eruption on arm.

*Laboratory Examination.*—Patch tests proved eruption was due to fish oil and dural with a four plus reaction. (Skin at rest.) Scrapings for fungi were negative.

*Diagnosis.*—Occupational dermatitis, due to fish oil and dural, was proved by laboratory examination.

*Treatment.*—Changed to another department, where he would not be in contact with offending factors. Shifted to paint shop. Routine office treatment and x-ray therapy. Soothing lotions and ointments.

*Prognosis.*—Dismissed in two weeks, apparently well and symptom-free.

#### SUMMARY

From my study of occupational hazards in the aviation industry I hereby submit the following deductions:

1. We should remember that aviation is rapidly becoming a vast industry, hiring approximately 60,000 men. Therefore, an organized effort must be made to synchronize the industrial medical set-up with the occupational skin hazards problem.

2. A trained dermatologist should be on the staff of all aviation plants.

3. The dermatologist, and not the industrial surgeon, should diagnose and treat dermatologic cases.

4. The insurance carrier's medical director should be coöperative. The Aetna's Pacific Coast director, Dr. T. P. E. Gocher, has given our project valuable aid, and without that aid we could never have succeeded in solving many of our difficult problems.

5. A definite program must be followed, with the coördination of all agencies such as company officials, personnel director, employment director, medical director of insurance company, local industrial surgeon, first-aid departments, dermatologist, without the duplication of processes.

6. In our series of twenty-five classical cases, picked from our files, infected fish oil-dural combination, which produces pyodermic fish oil-dural dermatitis, was the main causative factor.

7. The allergic dermatoses were found universally in persons with an imbalance of central and sympathetic nervous systems.

8. Commercial fish-oil lubrication on dural should be discontinued. But the American Aluminum Company maintain that fish oil is the most economical, and also the best. Here we have, on one side of the ledger, business economy, and on the other, a few dermatologic cases.

233 A Street.

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### STERILITY\*

#### A STUDY OF FIVE HUNDRED CASES

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WHILE it is true that the problem of sterility is rather complex, it does not follow, as some authors appear to believe, that complicated clinical and laboratory procedures must of necessity be resorted to in the study of every case. The elaborate clinic, advocated by some investigators, may be ideal, but certainly such extensive studies are indicated in a relatively small proportion of cases. The minimum standard of procedure, carefully adhered to, will give good results, be applicable to a larger group of patients and fall within the scope of many more physicians. Sterility, as defined by Howard A. Kelly in 1907, is "a disease of married life affecting the generative and procreative powers of the contracting parties." Its study demands tact, time, patience, and a thorough knowledge and appreciation of the anatomical and physiological factors involved. A fact that must unfailingly be kept in mind is the paramount importance of dual responsibility. This is not always appreciated by the laity or the profession, there being a tendency to place the onus of barrenness on the woman.

#### CLINICAL MATERIAL FOR THE STUDY

The following data, from observations on five hundred patients examined for sterility, are not of a factual nature. In many instances the interpretation of what constitutes the major factor introduces the personal element, and this will account for the overlapping of the various groups. The findings are in agreement with those of other investigators, in that most couples reveal two or more factors, each of which definitely lowers the fertility.

Though this study is limited primarily to the female, no investigation of the problem of sterility would be acceptable without a complete study of the male. Unfortunately, our examinations of the male are incomplete, and permit very few conclusive statements. It is now known that the fertilization

capacity and the motility of the spermatozoa are not synonymous, so that the examination of the male specimen for motility alone is of little value. The thorough examination of the male predicates a careful study of the semen in all of its aspects, including both the fresh and the stained specimens, and noting the viscosity, the volume, the count, and the morphology. Of 408 husbands examined, 103 were found to have one or more abnormalities inimical to fertility. Because of the frequency of male responsibility and the greater ease of making sterility studies on the male than on the female, a complete appraisal of the semen should be one of the first steps in the diagnostic routine. To subject the wife to any form of treatment or operative procedure with the husband still an unknown factor is properly regarded as culpable practice. However, too frequently the woman is exposed to painful investigations, the disregard of the husband being based only on the wife's statement that her partner is mechanically potent, a condition erroneously interpreted as indicating generative potency. This misconception probably accounts for the infrequency with which the male seeks aid for sterility.

There are no short cuts to the accurate diagnosis of the cause of sterility, nor are there any therapeutic panaceas. Success is dependent on the conscientious collaboration of both mates with the physician. There are many discouraging features; and the literature, filled with the clinical experiences of other investigators, is often contradictory. Many preconceived theories have been abandoned, as clinical experience accumulated. Though a certain number of cases are hopeless from the start, many women are condemned by their physicians to a childless life, when it might have been otherwise had their cases been more carefully studied. Too frequently, both the physician and the patient, appalled by the theorem that the study of the cause of sterility requires elaborate and expensive procedures, hesitate to attack the problem. However, minimum study is consistent with good practice, provided the physician is entirely cognizant of the importance and significance of the various routine steps.

#### PROCEDURE USED

Our routine, briefly stated, consists of (1) an explanation to both mates of the many problems in the study of sterility. This is the most important step in the management; for without complete cooperation of both the husband and wife, good results will be a matter of luck. (2) The complete history and physical examination of both partners. The finding of a major factor in either one, at this step of the study, does not justify an unreserved prognosis that pregnancy is impossible. (3) Post-coital (Hühner test) examination. It is assumed that a thorough study has been made of the collected specimen by a competent urologist. (4) Tubal patency test (Rubin test). (5) Endometrial biopsy. (6) Special chemical tests, hormonal determinations, and hysterosalpingography are performed when considered necessary, but are not routine procedures. Though the promiscuous employment of laboratory methods without definite indications for their use is to be discouraged in the study of

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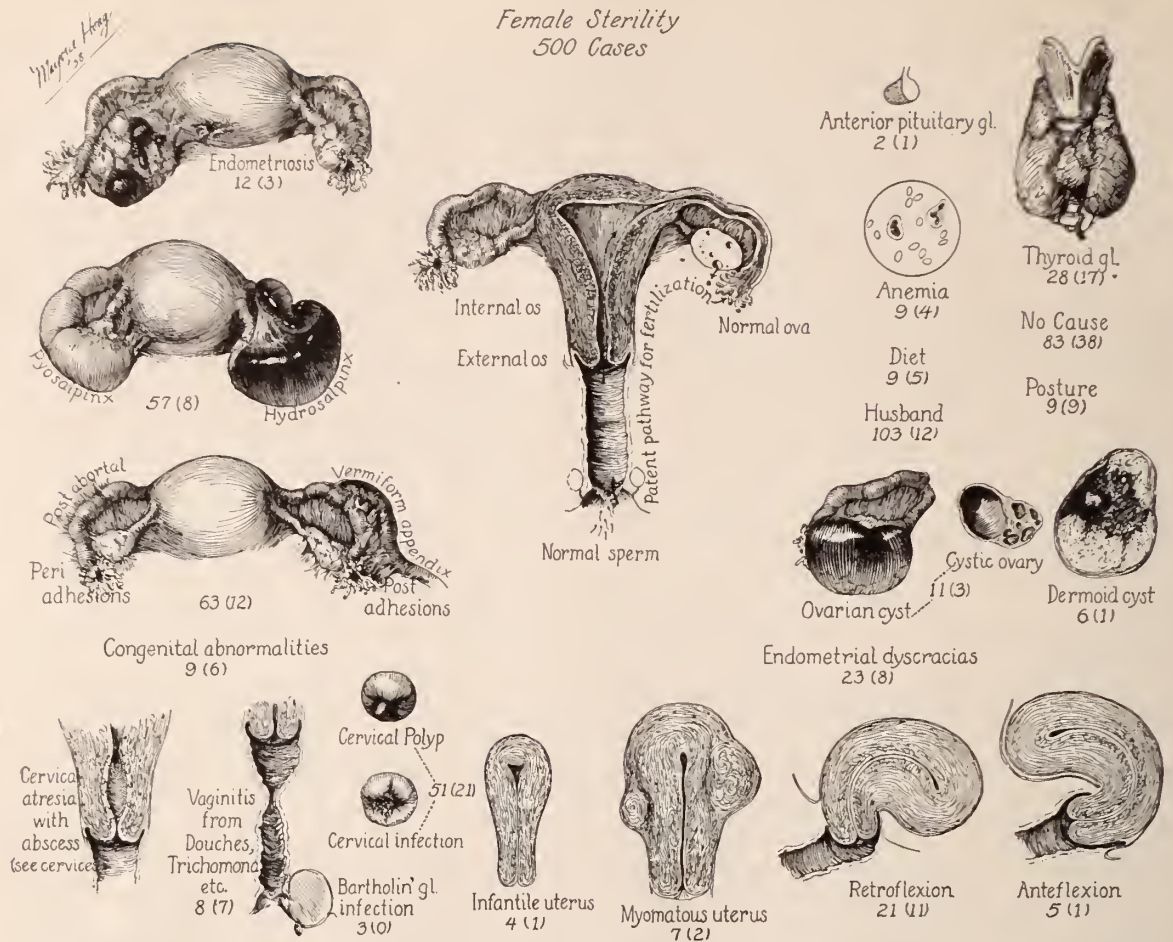


Fig. 1.—Diagrammatic classification of the major factors arbitrarily selected in 500 cases of sterility. Figures in parenthesis indicate number of pregnancies.

sterility, as it is to be discouraged elsewhere, the tests listed above are indispensable.

Time and space are too limited to permit a detailed outline of each step in our routine; however, a few comments on several of the procedures seem pertinent.

#### HÜHNER TEST

Though this test does not replace the examination of the collected specimen from the male, it is an indispensable adjunct. The pH of the cervical secretion, except immediately after coitus, is of little practical value. For this test, the patient is advised to rest on her back with hips elevated for thirty minutes following coitus. She is also warned to avoid urination following coitus, as this act hastens the escape of the semen from the vagina. Having placed a small cotton plug in the vaginal orifice, the patient presents herself at the office for examination. The finding of normal-appearing and active spermatozoa in the cervical specimen after several hours indicates a compatible specimen. Occasionally the patient becomes pregnant following this test.

#### RUBIN TEST

This test reveals only the patency or the occlusion of the tube, and does not register the tubal peristalsis, which is the sign of a normal fallopian tube, unless kymographic studies are combined. An

attempt is made to avoid discomfort or undue manipulation of the cervix in order to prevent reflex spasm, a reaction no doubt accountable for many unsuccessful tests. Following the introduction of the cannula into the cervical canal, the vaginal vault should be filled with sterile water so that bubbles will reveal a leakage. Auscultation without safeguard against leakage is not dependable, nor is it possible to differentiate the right from the left tube with the aid of the stethoscope. The patient should not be pronounced sterile because of one or two unsuccessful tests; the test should be repeated at intervals of several months, under optimum conditions. The test is also of value as a therapeutic procedure, even in the presence of patent tubes. Pregnancies have followed tests interpreted as unsuccessful.

#### ENDOMETRIAL BIOPSY

Popularized by Novak, this test is an important adjunct to our routine, requiring only the competent interpretation of the endometrial patterns. Not only does the endometrium serve as a dependable index of ovarian function, but it indirectly reflects the activity of the anterior lobe of the pituitary, and the presence of mechanical and physiological factors capable of producing secondary changes in the endometrium. The procedure can be carried out in the office with little discomfort to most

patients. To say that there is no danger would be overlooking the accidents associated with any form of intra-uterine manipulation. However, we have had no ill effects to date. Persistence of a non-ovulatory type of endometrium is usually indicative of an ovarian dysfunction, but our present knowledge does not permit a classification of primary or secondary involvement. Thus the treatment is empirical. To treat any case of sterility without an endometrial study, subjecting the wife to medication and operative procedures, is certainly reprehensible practice.

#### HYSTEOSALPINGOGRAPHY

The routine use of iodized oils, with their irritating and occasional serious results on the tubal mucosa, gave this procedure a bad name in many conservative clinics. However, with the recent advent of a nonirritating opaque substance, the test is indispensable when indicated. The important point in all of these tests is the proper selection of the case. Radiography of the tubes is indicated not only in the presence of obstructed tubes, but also when the normalcy of the tubes is questioned, even though the insufflation test is successful.

Ordinarily the above tests require hospitalization for one day. The tests are carried out under anesthesia, and extreme care to assure aseptic conditions is taken. The tests, for obvious reasons, are undertaken in the following order: tubal insufflation, hysterosalpingography, endometrial biopsy, dilatation of the cervical canal and cauterization of the cervix.

There are three essentials for every conception, viz., normal spermatozoa, a normal ovum, and a normal pathway permitting fertilization and implantation. Thus, the factors inimical to conception fall into two major groups, i. e., those interfering with normal gonadal activity and those serving as obstructive lesions, either by preventing the union of the spermatozoon and the ovum, or by interference with the nidation of the fertilized ovum. The arbitrarily selected major factors present in five hundred cases have been diagrammatically illustrated in Figure 1. Perusal of the literature as to the causes and the treatment of sterility shows that opinion as to their relative importance depends upon the special interests of the investigator. The private practitioner, the public clinic, the endocrinologist, the internist, the gynecologist and the psychiatrist may report very inharmonious data. In spite of this discordant therapy, the percentage of success is approximately the same. Our figures show a tendency to overlapping, as a dogmatic classification is impossible in some instances. In presenting the following comments, it must be remembered that this report is made by a gynecologist, with the interpretations which might naturally be expected, though an effort has been made to weigh each case dispassionately.

#### GONORRHEA

Though no longer the predominating factor, it is still accorded much emphasis because of its sterilizing effects in both sexes. The male, with evidence of a residual gonorrheal infection, usually

has a partner with occluded tubes. It is proved that, even in the acute gonorrheal infections, sterilization is not inevitable if proper conservative therapy has been undertaken.

#### ENDOMETRIOSIS

Though endometriosis was not present very often, we wish to stress the contra-indications to either radiative or surgical castration as routine therapy. In those cases presenting pelvic endometrial implants, producing pain but without evidence of obstructive complication, we favor the resection of the superior hypogastric plexus. Thus the patient is relieved of the pain, yet not deprived of the possibility of becoming pregnant. It is important to impress upon the patient the possibility of later surgery, and that the resection is not a cure, but a temporary relief. With this properly explained to the patients, the majority will request conservative surgery. The question arises as to whether this lesion will not tend to regression in some instances. A second admonition in the treatment of endometriosis is against the injudicious extirpation of the ovary containing "chocolate cysts." The majority of these are usually hemorrhagic in origin and contain no endometrial tissue. The "chocolate cyst," as described by Sampson, is a definite pathologic entity requiring more than the presence of encapsulated old blood to identify it.

#### ABORTIONS

The frequency of sterility—among women otherwise healthy, but who give a history of abortion, either spontaneous or instrumental—is too little appreciated. Though the patient perhaps considered her case an uncomplicated one, apparently in many instances there was enough infection to involve the tubal lumen. The indiscriminate use of the curet is also a factor in the production of sterility.

#### APPENDICITIS

The history of appendicitis, treated either medically or surgically, is of significance. Sterility in these cases may result in one of two ways: either by obstruction in the form of tubal or peritubal involvement or by secondary inflammatory changes about the ovary, which interfere with ovulation. There is also the unfortunate patient who has lost the right adnexa because of superficial involvement secondary to the inflamed appendix. The fallopian tube possesses remarkable recuperative powers following various forms of extrinsic and intrinsic trauma, and the removal of the adnexa merely because of hyperemia and edema is not justified. Many of these cases, on careful examination, will reveal no assignable cause. In the presence of drainage, the outlook is more serious, as the adnexal injury is usually bilateral. This is the type of case, with the trauma usually extrinsic, that responds to repeated tubal insufflations, and in extreme cases may call for pelvic plastic surgery.

#### CERVIX

Because of the ease with which it can be examined and treated, the cervix receives a major share of instrumentation. The cervical plug, acting as a



mechanical barrier rather than as a biochemical hazard, cannot be removed by douches, nor can its acid-base equilibrium be affected by various pastes, powders, or solutions introduced into the vagina. Careful dilatation of the cervical canal is usually sufficient to prevent its acting as a barrier. Polypi, at times not visible on cursory examination, must be removed. The infected endocervix, with its associated thick purulent drainage acting as an obstructive as well as a chemical hazard, cannot be treated except with the cautery. Ideally, the radial cauterization should be preceded and followed by adequate dilatation of the canal to prevent atresia. There is also the occasional case that shows no evidence of cervical infection, but which has sufficient involvement of the endocervix to prevent conception. However, as with the curet, the indiscriminate use of the cautery can be the cause of permanent damage.

#### THE UTERINE BODY

Malpositions of the uterus, myomatous nodules, and vascular changes in the pelvic floor not only serve as mechanical impediments, but produce secondary changes in the uterine wall that interfere with normal endometrial activity. Conservative therapy applied to correct the mechanical processes is indicated before suggesting surgery. Any form of surgery, such as myomectomy or correction of uterine displacements, employed primarily for the relief of sterility, should not be undertaken unless all possible but less obvious factors in both mates have been recognized and corrected.

#### THE OVARY

Notwithstanding the great advances made in our diagnostic procedures, methods are still lacking by which we can ascertain the normal character of the ovum, the time when it enters the fallopian tube, and the exact moment of fertilization. Neither do we fully understand the various changes occurring within the ovary prior to ovulation, nor the changes within the ovary following ovulation. The ovarian activity, as we understand it, is dependent upon the anterior lobe of the pituitary, and is mirrored by the endometrium. Ovulation may fail because of a thickening of the ovarian cortex, or adhesions may interfere in a mechanical way with the normal discharge of the ovum. The sclerotic ovary, unable because of the thickened capsule to permit normal ovulation, will show only proliferative changes in the endometrium. Most of our cases, presented with definite sclerosis of the ovarian capsule, give a history of pelvic inflammation, usually appendiceal or postabortal, though several have probably been caused by the injudicious use of the cautery. There is no hormonal therapy at our disposal which will alleviate this condition. Plastic surgery on the ovary has been advised, but our studies are too recent to permit comment. The presence of cysts, large enough to interfere with ovarian activity, either by affecting the normal follicular response or in a mechanical way, does not sanction routine extirpation. The identification of normal ovarian tissue, even in the presence of dermoid cysts, justifies enucleation of the cysts, care being taken not to interfere with the blood supply or distort the tubal

lumen. The reasons for removing the dermoid cyst by enucleation must be thoroughly explained to the patient; for, though the dermoid type of tumor is a slow-growing tumor, a second operation may be necessary. The conservation of ovarian tissue in young women is essential whenever the opportunity permits, even though a second laparotomy may be required at a later date.

#### ENDOMETRIAL DYSPLASIAS

For want of a better classification, we have listed the endometrial polyp, the incomplete menstruation, the ovulatory metrorrhagia, the anovulatory menstruation, endometrial hypertrophy, and endometrial hyperplasia as endometrial dysplasias. Glibly used terms to exemplify little-understood tissue changes in the endometrium, they are of paramount interest because of the frequency with which they are either overlooked or misinterpreted.

The polyp not only serves as a foreign body, but often produces changes in the basal layer of the endometrium that seem to persist for months following the removal of the polyp. Not all polypi are accompanied by uterine bleeding. The histologic picture is often diagnosed as an endometrial hyperplasia. It is also likely that incomplete menstruation is not only the progenitor of the polyp, but, because of the underlying tissue damage, may also be the result of the polyp.

Complaints of bleeding at regular intervals of two weeks, with one period usually of shorter duration, will reveal, following endometrial studies, that the shorter period is the type of bleeding associated with ovulation, and that conception could only occur at that time. Studies now being made on a series of normal women tend to show that ovulation is always accompanied by various degrees of vaginal bleeding. The amount, usually microscopic in quantity, not infrequently is sufficient to require protection. The source of this blood is uncertain, as studies on the endometrium at this phase of the cycle do not disclose definite changes. Moreover, studies of the endometrium, in some instances of profuse uterine bleeding, do not always show the source of the bleeding. The routine of our test is simple and can be carried out by the patient with little discomfort. In no case have we found evidence of ovulation as determined by changes in the endometrium, in the absence of vaginal bleeding. There are a number of methods employed to determine the time of ovulation, including rather elaborate electrical apparatus, changes in the cervical plug, alterations in the vaginal epithelium, breast pains, hormonal determinations, spectroscopic studies and many others, most of them requiring special equipment and training. The value of our rather simple routine is that it can be carried out by the patient with the minimum possibility of error. Some women bleed regularly, but do not ovulate, while a few ovulate without bleeding. Those falling in the latter group, rare in occurrence, are a very perplexing problem. For several years we have considered "mittelschmerz" and ovulation as synonymous; but recent investigations have shown that this interesting syndrome is not an infallible sign of ovulation.

Anovulatory menstruation, as a rule, occurs more frequently in women with definite menstrual disturbances. It also occurs in normal women, and we agree with Novak and Hartman that it is not an indication of abnormal ovarian activity. Of more interest to the pathologist than to the clinician, its presence can be determined by the study of the endometrium. The absence of normal progestational changes during the latter part of the cycle is indicative of ovulatory and corpus luteum failure, under which circumstances conception is impossible. Heretofore we have reported such tissue as indicating a possible hypophyseal-ovarian dysfunction, basing our conclusions on a single biopsy study. Present studies show that a second biopsy, taken several months later, will possibly reveal normal cyclic changes. Anovulatory menstruation seems to be more frequent in the early and late phases of the active reproductive life of the woman. It is difficult to evaluate endocrin therapy in such cases, as many of them seem to respond without any form of treatment. In all such cases we have advised proper treatment of general systemic diseases, malnutrition, hypothyroidism, etc. A good rule is to feed them if they are thin, and diet them if they are fat.

A rather poorly defined histological picture is endometrial hypertrophy, frequently misinterpreted as endometrial hyperplasia. It is usually associated with malpositions of the uterus, subserous fibrous changes in the uterine wall, pelvic vascular changes, or systemic diseases involving the cardio-respiratory organs. Thus the causes are usually mechanical, and can be relieved following the correction of this factor.

#### THE UNASSIGNABLE GROUP

The largest, and also the most vexing group, consists of those who, after a thorough examination of both partners, fail to reveal any abnormality inimical to fertilization. Though some of these do become pregnant following the study, many belong to that group apparently sterile in their union with each other because of a varying index of fertility, but fertile when married to other partners. Advice in this series of cases relates to general improvement of hygiene, sex habits, diet, and assurance.

#### ENDOCRINE FACTOR

The endocrine factor, since our present tests are not well established, is still in the experimental stage, though accruing clinical evidence suggests great possibilities for this type of therapy. The obvious endocrine dyscrasias are easily diagnosed, but the less obvious changes resulting from partial derangement or deficiency of the gland activity present difficult diagnostic problems. In our hands the administration of thyroid has been the only type of glandular therapy which has given consistent results. Experience with pregnant mare serum has been too limited to justify conclusions, though so far it has failed to produce ovulation in our anovulatory type of case.

In presenting this paper no attempt has been made to give a comprehensive study of the causes

and the treatment of sterility, the relative value of the endocrines, the vitamins, the various diets and forms of therapy. We have presented a few of the more interesting points which should be of value to the physician in explaining the complexity of the subject to his patients, and in his own efforts to discover and treat the cause or causes of the sterility.

#### SUMMARY

1. Sterility is the inability of a couple to have children, usually because of gonadal dysfunction or obstructive lesions.

2. The proper treatment consists in a conscientious adherence to a minimum standard of routine, attempting to unearth all possible factors before instituting any form of therapy. The diagnostic routine requires a careful study of the male as well as of the female.

3. Certain basic procedures are indicated and include the postcoital test, the tubal patency test, study of the endometrium during the progestational phase of the cycle, and hysterosalpingography when indicated.

4. Surgical intervention should never be resorted to without a thorough appraisal of the male.

5. The study of the causes and the treatment of sterility will be more successful if the physician is fully conversant with the various factors which may be involved. Elaborate clinics are unnecessary, but an appreciation of the problems is paramount.

523 West Sixth Street.

### EQUINE ENCEPHALOMYELITIS: ITS RELATIONSHIP TO MAN IN CALIFORNIA\*

By B. Howitt, M. A.  
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**D**URING the summer of 1930 a virus was recovered by Meyer, Haring, and Howitt<sup>1</sup> from horses in the San Joaquin Valley that were dying of an acute infection of the central nervous system. Although about 6,000 horses were so affected from 1930 to 1932, with a mortality of 47 per cent, only three human cases—one fatal and two nonfatal—were implicated. These patients were veterinarians or persons in close contact with sick horses, and their histories were reported by Meyer<sup>2</sup> in 1932. No virus was recovered.

Although, too, the equine disease is apparently endemic in both the Sacramento and the San Joaquin valleys, the actual number of sick animals has greatly diminished of late years. Reports have been made, but not in very large proportions; and, consequently, this disease was not primarily suspected when an outbreak of acute encephalitis was reported by physicians around Fresno during the summer and autumn of 1937. The highest morbidity occurred in Fresno County, with twenty-eight individuals, and a mortality of thirteen, or 42.8 per cent; yet about 102 cases of acute encephalitis were reported throughout the state.<sup>7</sup>

\* From the George Williams Hooper Foundation of the University of California, San Francisco.



## HUMAN MATERIAL

Brain material was received from three fatalities in 1937, but no virus was isolated. In coöperation with the State Department of Public Health, blood was then collected from many of the recovered patients, and the serums were tested for neutralizing ability against the viruses of the St. Louis and the Japanese types of encephalitis and of lymphocytic-choriomeningitis, respectively. All were negative for the two latter strains, but 56.6 per cent of thirty cases from Fresno and Tulare counties were positive for the St. Louis type.<sup>3</sup> Since many of the patients showed clinical pictures similar to those described for the latter strain, it was assumed that the etiologic agents were identical, even though no actual virus had been isolated. However, the percentage of positive neutralization tests was much lower than the figures given by others for recovered patients after the St. Louis epidemic. Wooley and Armstrong<sup>4</sup> obtained 94 per cent positive serums and Webster, Fite, and Clow, 82.5 per cent.<sup>5</sup>

This discrepancy was not easily accounted for until the autumn of 1938, when more cases of encephalitis were reported in the same Fresno and Tulare areas, and also from Kern County. It so happened<sup>6</sup> that, on August 30, 1938, brain material was received from a boy (Br), twenty months old, through the courtesy of Dr. H. M. Ginsburg and the staff of the Fresno County Hospital.

## REPORT OF CASE

The child had been taken ill on August 25, entered the hospital with a fever of 105 degrees Fahrenheit, showed neck rigidity, fast respiration, rapid pulse, spasms of the extremities, became comatose, and had died in five days after the onset. The diagnosis was acute encephalitis.

A 10 per cent suspension of the brain was inoculated intracerebrally into young mice, all of which died in three to five days. Brains of these animals were inoculated into others and a virus was then established which passed a Berkefeld N filter, and was extremely virulent for mice when given intracerebrally in dilutions up to 1-10,000,000. It was also pathogenic for guinea pigs, rats, rabbits, and monkeys, and from the neutralization, complement-fixation and cross immunity tests, was found to be identical with the western strain of the equine encephalomyelitic virus.

On August 6, 1938, blood was sent by Dr. Ellis Sox from a man dying in the Tulare County Hospital of an acute encephalitis. The serum did not neutralize the St. Louis virus, but after two months' storage it was found to contain the western equine strain upon intracerebral inoculation of mice.

## COMMENT

Surmising now that, perhaps, many of the encephalitic cases reported from the San Joaquin and Sacramento valley regions might have been due to infection by the western equine strain, all of the old serums on hand that had been previously tested for antibodies against the St. Louis virus, and a number from recently recovered patients, were then tried against the new Br strain.

Of 103 serums, forty-nine, or 47.5 per cent, neutralized the St. Louis virus; while seventy-one, with 52.1 per cent positive, were from the three counties of Kern, Tulare, and Fresno.

Of eighty-six serums in the same series, thirty-two, or 37 per cent, neutralized the Br equine strain, of which fifty-nine were from the same three counties, with twenty-six, or 44 per cent, positive.

The individuals with positive serums in Fresno County were mainly from the central portions—Fresno, Kerman, Sanger, Selma, and Del Rey; while in Kern they were also from the drainage areas—Bakersfield, Buttonwillow, Arvin, Delano, and Edison.

There were six positive neutralizations with serums from other parts of the valley regions: one from Corcoran, two from near Stockton, two from Davis, and one from Gridley.

That so many serums gave protection tests for both types of these two viruses is likely of diagnostic significance; but it is difficult to decide what interpretation to place on such findings when, on further analysis, it was seen that a number of serums were positive to both the St. Louis and the equine strains. Of sixty-nine serums tested for the two viruses, eighteen, or 26 per cent, showed some degree of neutralization for both. However, as many of these patients were of the transient labor group or had some connection with the middle or southwestern states, it seems reasonable to assume that some of them had acquired the antibodies for the St. Louis virus at an earlier period. If that were so, one would expect the greater number of positive tests for this strain among the older age group, and also the appearance of both types of antibodies in one serum among the latter, and the presence of one or the other among the younger people. These expectancies were mainly confirmed upon tabulating the neutralization tests according to age distribution of the encephalitic cases in the three counties of Fresno, Tulare, and Kern. As the age increased, the number of positive tests to both strains also increased, and there were more positives to one type of virus alone among the younger children than among the adults. The latter group also showed the greater number of positives for the St. Louis virus, while there were more for the equine among the children. One can probably be justified in assuming, therefore, if antibodies are present for one virus alone, especially among children, that it is likely to be the etiologic agent of the neurotropic disturbance involved. However, it should be mentioned that, to have diagnostic significance, the antibodies should be absent in the early stages of the disease and appear later during recovery.

## OTHER STUDIES

Serums were then tested from individuals reported as having had poliomyelitis in both Kern and Tulare counties in the years following 1934. Most of them were nonparalytic. Of fourteen from Kern County, five showed positive neutralization for the St. Louis virus, six for the equine, and three for both. Of the Tulare group, eleven out of twenty-three were positive for the St. Louis strain, while only one out of thirteen was very weakly positive for the equine type.

Tests were also made on serums of normal contacts and noncontacts or on recovered poliomyelitic patients from the coastal towns. All of the latter were negative for both viruses, while, with one exception from Tulare, all of the normals were negative for the equine strain. Six of the serums

from people in Tulare County, however, neutralized the St. Louis virus.

## COMMENT

That so many individuals in the Valley regions had antibodies for the St. Louis virus may perhaps be due to the change in the migrant labor population since 1934. Instead of Mexicans or Filipinos, they were now from the middle and southwestern states. It seems very likely that these people may have brought in not only the antibodies for the St. Louis virus, but probably the disease itself, although no active agent has been recovered. In addition, poliomyelitis was already endemic in the Valleys, and now a third neurotropic form—equine encephalomyelitis—has appeared to add further confusion.

Both 1937 and 1938 were unusually wet years, with many mosquitoes in evidence. Although no insect has been implicated for this virus in the field, yet many workers have experimentally shown it can be transmitted by at least five different species of *Aedes* mosquitoes. It is very likely, therefore, that during these past two years, when the equine virus became of significance to human welfare, some insect vector has been brought nearer the populated centers. There is also the possibility of a new reservoir other than the horse. To summarize:

In California, during 1938, the western virus of equine encephalomyelitis has been recovered from human brain and blood serum.

Of 103 serums from encephalitic cases in northern California, forty-nine, or 47.5 per cent, gave positive neutralization for the St. Louis virus. While thirty-two, or 37.0 per cent, of eighty-six serums were positive for the human equine strain.

In Kern, Tulare, and Fresno counties alone, there were 52.1 per cent positive to the St. Louis virus and 44 per cent positive to the equine, respectively.

Of a total of sixty-three normal individuals, contacts and noncontacts, resident in both the Bay region and the Valley districts, eight had antibodies for the St. Louis strain and one for the equine. All except two of the positive group lived in the San Joaquin Valley.

The only ones positive for either viruses among the recovered poliomyelitic cases also came from the San Joaquin Valley.

From the presence of swampy lands and many mosquitoes near the areas affected, it seems likely that the equine virus is transmitted to man by an insect vector, and that probably the St. Louis virus has been brought in by the migrant labor population.

The Medical Center.

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## ACUTE PANCREATITIS\*

By NORMAN C. PAINE, M.D.

Glendale

WITHIN eighteen months we have encountered acute pancreatitis seven times. This inspired a statistical study of the experience at the Los Angeles County Hospital and a review of recent literature.

It appears certain that acute pancreatitis occurs frequently as a transient colic; is often primary in the pancreas and not always secondary to pathology of neighboring structures: it can be diagnosed by specific laboratory tests if these are applied promptly; and treatment is not always surgical.

## REPORT OF CASES

CASE 1.—A 36-year-old overnourished, alcoholic male had upper abdominal distress over a period of six months. On one occasion a physician advocated an appendectomy, which the patient refused. Cholecystograms were normal. The acute onset was marked by pain in the left epigastrium, tenderness in both upper quadrants, distention, rigidity, vomiting, and cyanosis. The diagnosis was ruptured duodenal ulcer. At operation the duodenum and gall-bladder were normal. There was serous fluid in the abdomen, the head of the pancreas was visualized and found normal, the abdomen was closed. Death occurred in thirty-six hours. Autopsy disclosed necrosis of the tail of the pancreas, with fat necrosis about the spleen and left kidney. I missed the tail of that pancreas.

CASE 2.—A man of fifty-six, a sufferer for years from selective dyspepsia, entered the hospital in a desperate condition; pain diffuse across the upper abdomen, vomiting for three days, marked rigidity and tenderness, slight icterus and cyanosis. Urinary diastase was markedly elevated. Diagnosis: ruptured gall-bladder or acute pancreatitis, possibly ruptured ulcer. Because of the evidence of peritonitis and collapse, conservative treatment was continued. At first it was uncertain whether the greater mass was in the left or right upper quadrant; later, only the mass on the right remained. Operation was postponed again and again, till three weeks later something ruptured and acute peritonitis was evident. The abdomen was opened and general peritonitis found. Cholecystostomy for empyema with stones was performed, with abdominal drainage. Thick exudate and adhesions discouraged pancreas exploration. Death ensued. Autopsy, in addition to the peritonitis and gall-bladder condition, disclosed extensive hemorrhagic necrosis of the pancreas. We believe the extreme gall-bladder and pancreatic pathology were coexistent throughout in this case.

CASE 3.—A female, forty-three, had suffered for six hours from acute right upper-belly pain, radiating through to the back, with repeated vomiting. Both upper quadrants were markedly tender, as was the left costovertebral area. Urinary diastase was elevated. A diagnosis of acute pancreatitis was made by Dr. M. X. Anderson, but fearing the possibility of a ruptured duodenal ulcer, operation was performed. The gall-bladder was normal. Fat necrosis was found in the lesser cavity, opened through the gastrosolic omentum. Cholecystostomy and drainage of the pancreas through the left hypochondrium were done. A stormy convalescence followed, with cheesy drainage from the pancreas for three and one-half months.

CASE 4.—Illustrated the not uncommon pancreatitis which is recognized only at autopsy. A male of seventy-

\* From the Los Angeles County Hospital, Surgical Service of Harlan Shoemaker, M.D.

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three, alcoholic, developed a painless jaundice. Cirrhosis of the liver, with possibility of a carcinoma of the head of the pancreas, was considered. No operation. Autopsy disclosed a distended gall-bladder, but otherwise normal biliary tract; cirrhosis and acute hemorrhagic pancreatitis with necrosis were present.

CASE 5.—A 54-year-old man, with a history of one severe attack of abdominal colic two months previously. Agonizing midepigastric pain with vomiting. Though previous cholecystograms evidenced a nonfunctioning gall-bladder, the location of the pain and tenderness and the violence of the vomiting suggested an acute pancreatitis. At operation fat necrosis, and an acutely inflamed area on the head of the pancreas, were discovered. Cholecystectomy of a chronic gall-bladder with stones was done, and the lesser peritoneal cavity drained. Recovery was perfect.

CASE 6.—A typically acute pancreatitis, illustrating the type which recovers spontaneously, and which clinicians should recognize and prove by laboratory examinations, but which has not, up to date, been generally recognized.

This diagnosis may be challenged; but since studying the case histories at the Los Angeles County Hospital, and reviewing the recent literature, the diagnosis appears simple. A male, age fifty-six, had dyspepsia for months; two hours after eating lunch he was seized with severe pain in his upper belly. When seen he was retching and vomiting, and sweating profusely. There was no cyanosis. Temperature, pulse, and blood pressure were normal. The white count was normal. Diagnosis of stone in the cystic duct was made and he was operated. At operation a chronic cholecystitis, without stones, and chronic appendicitis were found; cholecystectomy and appendectomy were done. The pancreas was firm and indurated but not especially enlarged, and no serous fluid or fat necrosis was seen. Three subsequent attacks of acute epigastric pain and vomiting have occurred; the first, two months after operation, was severe, the others less so. There have been none in six months. Blood amylase or urinary diastase estimations were not made.

CASE 7.—A man of fifty-two stated that he had been in the hospital four times in the past twenty months with severe pain in the epigastrium and vomiting. The stomach and duodenum had been x-rayed three times. A slight antral spasm was noted, but there was no evidence of ulcer. Repeated x-rays of the gall-bladder were normal. The colon showed diverticulosis. For five days the patient had moderate epigastric pain and a little vomiting; then an explosion with terrific pain and violent vomiting for an hour. Morphine gave relief; and under a regimen of light diet and sedatives there has been no relapse. Repeated blood amylase and urine diastase examinations gave a typical pancreatitis curve. Probably further attacks may be avoided—if the patient discontinues alcoholics and heavy "dining."

#### GENERAL HOSPITAL RECORDS

At the Los Angeles County Hospital in the eight years, 1928 to 1936, acute pancreatitis appears as a discharge diagnosis sixty-six times, chronic pancreatitis twenty-two times.

#### Discharge Lists.

The medical audit at the Los Angeles County Hospital, Hollerith Department, lists:

Year	Acute Pancreatitis, All Types	Chronic Pancreatitis
1929 .....	9	2
1930 .....	0	0
1931 .....	1	0
1932 .....	7	2
1933 .....	6	1
1934 .....	7	6
1935 .....	15	4
1936 .....	31	7
Total for 8 years.....	66	22

1937 figures are not available; probably the increased incidence is maintained. This may not be an actual increase, but rather a reflection of a more conscious search for acute pancreatitis.

One case of acute pancreatitis occurred to 6,978 admittances in 1934, one to 3,610 in 1935, and one to 1,842 in 1936.

#### Occurrence Elsewhere.

At Robert Packer Hospital, one acute pancreatitis to 5,343 admissions.

At Cedars of Lebanon, one to 7,500 admissions.

Barnes Hospital reports 3 per cent of 3,600 autopsies revealed pancreatic pathology.

Abell reports 30 cases of acute pancreatitis in 2,000 operations on the biliary tract, whereas Judd states that pancreatic pathology was present in 347 of 1,290 operations on the gall-bladder and ducts, an incidence of 27 per cent.

Tallman found that different surgeons reported anywhere from 9 to 81 per cent of the gall-bladder cases as having associated pancreatic disease.

#### Cases Reviewed.

A total of 64 cases of acute pancreatitis were reviewed.

22 cases were diagnosed at autopsy.

3 cases, clinical diagnosis, unproved.

42 cases of series died, a mortality of 66 per cent.

#### Patients Operated.

41 cases operated.

Mortality 21, or 51 per cent.

With 14 autopsies out of these 21 deaths.

Sex: 64 per cent males.

Age: Range, 2 months to 87 years.

Some 49 patients, or 76 per cent, between ages 30 and 60.

5 patients between 19 and 29.

3 patients in eighties.

1 infant of 2 months.

#### Hospital Stay.

Twenty-three of the 42 deaths occurred within 72 hours, or 55 per cent.

Fatal cases: Average stay in hospital, 8 days.

Cases which recovered: Average hospital stay, 39 days.

#### Gall-Bladder Involvement.

Cholecystitis in 28 patients, or 44 per cent.

Stones in 20 patients.

Jaundice mentioned in 7 patients.

Normal gall-bladder in 31 patients, or 48 per cent.

One case of congenital absence of the gall-bladder.

One fatal case, with previous cholecystectomy.

#### Fat Necrosis.

Autopsies, 19 of 36 patients give record of fat necrosis.

In two autopsied patients there was no fat necrosis.

For operative cases, 17 gave record of fat necrosis.

In six patients no fat necrosis was observed.

In seventeen patients no mention of fat necrosis was made.

#### Diagnosis.

In 45 of the 64 cases the preoperative or working diagnosis does not mention pancreatitis.

In 19 cases pancreatitis was mentioned as a possibility, and in 12 of these as a major probability.

#### Most Common Diagnoses.

1. Cholecystitis and cholelithiasis, usually correct.
2. Perforated ulcer, always incorrect except in one post-mortem finding, where a duodenal ulcer perforated posteriorly into the pancreas.
3. Intestinal obstruction, paralytic ileus often present.
4. Generalized peritonitis, present in several cases.
5. Empyema of the gall-bladder.

#### Clinical and Autopsy Diagnoses.

In eight cases diagnosed as acute pancreatitis after autopsy, the following diagnoses were recorded clinically:

1. Mental deterioration, semicoma entirely obscured the abdominal condition.
2. Left cerebral thrombosis.

TABLE 1.—Summary of Cases of Acute Pancreatitis

Case	Age Sex	Previous Attacks	Symptoms	Jaundice	White Blood Corpus- cles	Urine Diastase	Pre-operative Diagnosis	Operative Pancreas	Findings Gall- bladder	Operation	Outcome	Remarks
1	36 M	Dyspepsia for six months Appendicitis suspected Cholecysto- grams normal	Violent vomit- ing. Left and right upper quadrant pain Rigidity Distention Cyanosis	None	12,000	?	Ruptured Duodenal ulcer	Head of pancreas normal Some free fluid	Gall- bladder normal	Exploration	Death	Autopsy Distended bowel Pancreas head normal, tail necrotic Fat necrosis about left kidney
2	56 M	Several years selective dyspepsia for greasy foods	Upper abdomi- nal pain and rigidity Cyanosis Vomiting for three days	+ Slight	34,800	1,200 units	Acute pan- creatitis Peritonitis Chronic cholecystitis stones	Not examined General peritonitis	Empyema of gall- bladder stones	Chole- cystos- tomy Drainage	Death	Autopsy Peritonitis Extensive hemorrhagic necrosis of pancreas
3	43 F	None	Vomiting six hours. Right and left upper quadrant and left costo- vertebral tenderness	+ Slight	11,000	400 to 600 units	Acute pan- creatitis and cholecystitis Possible rup- tured ulcer	Fat necrosis Serosangui- nous fluid	Gall- bladder normal	Chole- cystos- tomy Pancreas drained through left hypo- chondrium	Recovery	Postoperative pneumonia Drainage for three and one-half months
4	73 M	Dyspepsia six months	No pain Distention	+ + +	?	?	Cirrhosis of liver Ca of head of pancreas	No operation	Gall- bladder normal	None	Death	Autopsy Advanced cirrhosis Extensive acute hemorrhagic necrosis of pancreas
5	54 M	One severe colic two months previously Nonfunctioning gall-bladder	Violent vomit- ing epigastric and Severe right upper quadrant pain Slight muscle spasm	None	11,450	?	Acute pan- creatitis Acute cholecystitis	Fat necrosis Inflamed head of pancreas Free fluid	Chronic gall- bladder with stones	Chole- cystec- tomy Appendec- tomy	Recovery	No recurrence
6	56 M	Indefinite dyspepsia for one or two years No severe attacks	Right upper quadrant and epigastrium Repeated vomiting Slight spasm	None	7,450	?	Stone in cystic duct	Indurated pancreas	Chronic chole- cystitis	Chole- cystec- tomy Appendec- tomy	Recovery	Three subse- quent attacks none in past six months
7	52 M	Four attacks in two years Hospitalized each time	Vomiting Epigastric pain Back radiation Slight muscle spasm	None	9,000	1,200 units	Acute pan- creatitis	No operation	Normal Chole- cysto- grams	None	Recovery	Pancreatitis not suspected at previous attacks



3. Myocarditis and cirrhosis of the liver in a woman of eighty-seven.
4. Decompensation and uremia. This patient was jaundiced and complained of epigastric pain for a week.
5. Coronary or mesenteric thrombosis. The patient had pain and vomiting for five days; died seven hours after admission.
6. Complication of thyroidectomy; persistent pain and vomiting immediately after operation. Death in two days.
7. Sequella of therapeutic abortion. Diagnosed hyperemesis, acute yellow atrophy or uremia.
8. Acidosis or intussusception of an infant two months old. Acute pancreatitis was the only pathology.

#### RECENT RESEARCH

The pathogenesis of acute pancreatitis is not entirely clear. Perhaps the most monographic studies have been made by Dragstedt and by his fellow workers of Chicago, published in 1934, and by Rich and Duff of Johns Hopkins, whose reports were published in 1936.

Dragstedt believes that chronic disease of the biliary tract is a probable factor in 60 per cent of the cases of acute pancreatic necrosis. In possibly 10 per cent, a reflux of bile into the pancreas occurs because of stone in the ampulla (Opie). Spasm of the sphincter of Oddi (Archibald) is possibly the exciting cause in a much greater number of cases. He suggests the following etiologic factors where bile has apparently not played a rôle: extension of infection via lymphatics from the gall-bladder or neighboring viscus; trauma; hematogenous infection, as in mumps; stasis of pancreatic juice plus infection; reflux of duodenal content; vascular injury, resulting from thrombosis or embolism, and extension from a perforated ulcer.

#### STUDIES OF RICH AND DUFF

Rich and Duff, while admitting that there is a close association between acute pancreatitis and biliary pathology, give evidence that actual rupture of the duct acinar system, with escape of active trypsin ferment into the surrounding tissues, is necessary to produce the vascular necrosis characteristic of acute hemorrhagic pancreatitis.

These workers injected commercial trypsin, of animal and vegetable origin, into the subcutaneous tissues of dogs. In this way they produced the characteristic vascular necrosis. The necrotic vessels are apparently attacked from the outside, the outer layers suffering the most extensive destruction. Next pancreatic juice from one dog was injected into the subcutaneous tissues of another. Fat-necrosis occurred regularly. If the dog was fed a large meal of meat and milk, two to three hours before the juice was collected, the juice was distinctly more viscid, and the subcutaneous tissues injected showed the typical "trypsin" necrosis of the walls of arteries and veins. Bile injected into subcutaneous tissues produced no vascular necrosis.

They conclude that the pancreas secretes an active trypsin ferment, or the trypsinogen is activated when it reaches the tissue spaces without any participation of enterokinase.

The escape of pancreatic juice into the interstitial tissues may occur through: (1) external trauma; (2) infarction; (3) infection with destruction of tissue; (4) reflux of bile into the pancreas with

rupture of acini; and (5) pressure due to obstruction of ducts outside the pancreas or within its substance.

Rich and Duff describe metaplasia of the epithelial lining of the pancreatic ducts, with obstruction of the duct and dilatation, and rupture of the ducts and acini behind the obstruction. These findings were made in thirteen of twenty-four fatal cases of acute hemorrhagic pancreatitis, and 18 per cent of 150 sections of the pancreas from consecutive autopsies. These sections also showed focal necrosis and scarring or fibrous tissue replacement.

Rich believes that usually the damage is limited to focal fat necrosis or small hemorrhages probably causing only transient symptoms. When acini rupture occurs from stimuli which greatly increase the production of secretion, *e. g.*, a large meal or alcohol, extensive destruction of vessels will occur if the juice is high in trypsinic ferment. If the escaping secretion is low in trypsinic power, fat necrosis may be the only result.

#### DISCUSSION

In considering the symptoms and laboratory evidence of acute pancreatitis, it should be stated at the outset that the discussion is not limited to the hemorrhagic or necrotic cases of this disease. Cases 5, 6, and 7, described above, are examples of typical acute pancreatitis without necrosis, of transient nature, and usually diagnosed biliary colic, intestinal obstruction, peptic ulcer, or coronary disease. Evarts Graham wrote in 1925: "Is it not probable that many cases of severe epigastric pain of uncertain nature, which clear up spontaneously, are really acute pancreatitis." At the Los Angeles County Hospital only two cases not proved at operation or autopsy have been discharged with the diagnosis of pancreatitis. In the light of recent advances in laboratory methods, it is probable that acute pancreatitis can be frequently diagnosed by the internist; that pancreatitis can be recognized as the cause of recurrent pain after cholecystectomy, and even as the cause of epigastric pain in known cases of biliary disease.

The attacks are severe and disabling, the patient seeking bed rest. The pain is often cramp-like and nearly always accompanied by vomiting, which may be repeated and projectile. In location the pain is midepigastric, often more severe to the right or to the left of the midline with radiation to the back in the lumbar or interscapular region. Attacks may last from a few hours to three or four days, and there is usually a history of previous attacks.

Examination discloses a patient suffering intense pain, but with a surprisingly normal pulse and blood pressure. Cyanosis and collapse only occur in the extreme hemorrhagic and necrotic cases. Tenderness may be general, but on careful palpation is usually over the second lumbar vertebra, the very constant position of the head of the pancreas. It may be more severe to the right or to the left of the midline. Left costovertebral tenderness may also be noted. Rigidity is slight except in the fulminating cases. Abdominal distention is marked in the severe, but less in the milder cases. A quiet abdomen was noted in all acute cases. It might be mentioned also that morphin *did* relieve the pain

in Cases 5, 6, and 7 described, which might argue against the spasm of the sphincter of Oddi as a causative factor. Mild icterus, even in the absence of biliary disease, may be present. Slightly elevated temperature, moderate leukocytosis, and normal urine are the rule.

The laboratory tests of specific value are tests for urine diastase, serum lipase, and blood amylase. Blood-sugar estimations have not proved of diagnostic value.

Foged of Copenhagen reports 16,000 urine diastase estimations on 4,000 patients made between 1929 and 1935. Comfort at the Mayo Clinic, Cherry and Crandall and others have studied the serum lipase in pancreatitis and other abdominal conditions. Elman and his associates in St. Louis have conducted extensive observations on blood amylase for over ten years. However, only one recent text on laboratory procedure describes the Fabricious-Moeller technique of urine diastase estimations, and none mention a serum lipase or serum amylase test.\*

#### LABORATORY DIAGNOSIS

At the Los Angeles County Hospital, urinary diastase examinations have been made for about two years, and an analysis of results is being made. Unfortunately, two or more different methods have been used which makes comparison of results difficult. Other large laboratories in this area have had very few requests for these examinations.

The serum lipase test used by Comfort requires twenty-four hours' incubation. The serum amylase or urine diastase require only a few minutes' work and thirty minutes incubation or heat in the water bath. Gray and Somogyi report comparative studies of serum amylase and urine amylase in the same patients. They conclude that there is parallelism, high blood goes with high urine amylase, and a higher concentration in the urine. They also found that urine amylase remained high twenty-four hours longer.

The abrupt rise in blood or urine amylase is attributed to the absorption of the obstructed secretions which normally would discharge into the duodenum.

In a recent communication, Elman writes: "From a practical point of view the amylase values are so high during the attack of acute pancreatitis that it really does not make much difference what method is used, provided a normal range is first

determined, and then the same procedure carried out in all cases."

If a prompt serum amylase or urine diastase is done in cases of suspected pancreatitis, a very high reading leaves no doubt as to the diagnosis of pancreatitis. This is just as true in the nonhemorrhagic as in the very severe cases. Within two or three days there is a sharp drop in the blood or urine enzyme content, and normal may be reached in three to fourteen days, even in cases where necrosis is so marked that a fatal result ensues.

#### THERAPEUTIC FACTORS

If, with dissemination of information about these enzyme tests, a great many more diagnoses of acute pancreatitis can be made, how will treatment be influenced?

1. If an extremely high amylase is found ruptured, ulcer and intestinal obstruction will be considered much less probable. In these cases operation may be postponed, or even avoided, and some early fatalities prevented.

2. If the diagnosis is still in doubt, the operator will not fail to open the gastrocolic omentum and visualize the pancreas with biopsy if desired. If the pancreas shows gross pathology or there is fat-necrosis, the lesser peritoneal cavity should be drained. Cholecystostomy has been usually advised, but if there is no evident abnormality of the gall-bladder or ducts it is not imperative.

3. With postponement of surgery and time for cholecystograms, a rational and unhurried treatment of the biliary tract is possible. If stones or a nonfunctioning gall-bladder are present, cholecystectomy may be done. Elman advises careful probing of the ducts, dilatation of the sphincter of Oddi, and drainage of bile through the cystic duct.

In my own cases cholecystectomy gave satisfactory results without duct drainage, possibly by producing a relaxation of the sphincter of Oddi.

4. With normal cholecystograms and a high amylase, a medical regimen of frequent small meals and sedatives may be instituted.

5. If cholecystectomy has previously been performed and an acute colic with high amylase, with or without jaundice, occurs, a medical regimen should be tried. This will obviate the frequent unsuccessful search for postcholecystectomy common duct stone.

#### IN CONCLUSION\*

1. In the past only fulminating and 50 per cent fatal cases of acute pancreatitis have been recognized, 30 per cent of these at autopsy.

2. About 50 per cent of acute pancreatitis is associated with biliary pathology.

3. Pancreatitis may frequently arise from intrapancreatic pathology, *i. e.*, obstruction of the ducts by metaplasia. Rupture of ducts and acini must occur, and the degree of pancreatitis depends upon the amount of secretions which escape and their variable concentration of trypsin and lipase.

4. Pancreatic enzyme tests on the blood and urine, where practiced regularly, indicate a much

\* Todd, J. C., and Sanford, A. H.: Clinical Diagnosis by Laboratory Method, p. 109, 1935 edition. Fabricious-Moeller estimation of amylase in urine.

Elman, R.: Annals of Surg., 105:380, 1937. Quoting M. Somogyi on estimation of blood amylase:

"A colloidal suspension of 1½ per cent washed (C. P.) cornstarch is prepared as a starch solution, which, if sterile, keeps fairly well; the formation of molds makes it unsuitable. To 5 cubic centimeters of this suspension, 1 cubic centimeter of the patient's plasma or serum and 2 cubic centimeters of 1 per cent sodium chlorid is added, and the mixture incubated for thirty minutes at 40 degrees centigrade. Then 1 cubic centimeter of 5 per cent Cu So<sub>4</sub> is added immediately, the mixture is shaken and 1 cubic centimeter of 7 per cent sodium tungstate is added; the mixture is again shaken and filtered. Sugar determination is made on 2 cubic centimeters of the filtrate. From the total amount of sugar, formed by the hydrolysis of the starch, is subtracted the amount of sugar present in 1 cubic centimeter of the patient's serum. The result is expressed in milligrams of sugar per 100 cubic centimeters of blood. Normally 70 to 200 milligrams of sugar will be produced by 100 cubic centimeters of blood serum in this way. At the height of an acute pancreatic obstruction or inflammation this value may reach a figure as high as 3,000 milligrams (*i. e.*, milligrams, per 100 cubic centimeters of blood.)"

\* The author wishes especially to thank Dr. T. S. Kimball, pathologist, for his assistance in gathering and studying numerous microscopic sections of the pancreas, and demonstrating the methods of enzyme determinations.



higher incidence of pancreatitis than previously supposed.

5. A more widespread familiarity with methods of blood amylase and urine diastase estimations is urged; also the necessity for each laboratory to discover the normal range with the method used.

118 West Wilson Avenue.

## STAPHYLOCOCCUS AUREUS MENINGITIS

REPORT OF CASE: TREATMENT WITH  
SULFANILAMIDE—RECOVERY

By H. VERRILL FINDLAY, M.D.

AND

MAX HAMMEL, M.D.  
*Santa Barbara*

IT is probably safe to say that no therapeutically potent drug has ever been so widely used, promptly accepted or deservedly popular as sulfanilamide. Since its introduction to the medical profession of this country by Long and Bliss,<sup>1</sup> it has been found to be of real therapeutic value in an increasing number of bacterial diseases. Among these are included those caused by the streptococcus,<sup>2</sup> staphylococcus,<sup>3</sup> pneumococcus,<sup>4</sup> gonococcus,<sup>5</sup> meningococcus,<sup>6</sup> and other organisms.<sup>7</sup>

Meningitis is not an uncommon disease, but the staphylococcus is rarely the responsible organism and, when so, the outcome is usually fatal. We feel that patients who have recovered from such a serious disease deserve to have their cases reported in the literature for the help and guidance of others. Especially do we believe that this should be done when the effective therapeutic agent was the easily administered drug, sulfanilamide. Block and Paccella<sup>3</sup> recently reported the recovery of an infant from staphylococcus meningitis following sulfanilamide therapy. They cite several cases of recovery from staphylococcus meningitis following various types of therapy,<sup>8</sup> but stress the high mortality in most instances.

### REPORT OF CASE

The patient, whose case we are reporting (No. 1750-A), was a fourteen-year-old male Mexican lad, well developed, moderately well nourished, weighing 110 pounds, who was admitted to the Santa Barbara General Hospital on December 8, 1937. His complaints, on admission, were: fever, headache, low backache, and soreness of the abdominal muscles. Because of language difficulties, a complete and accurate history was not obtained. Ten days prior to admission this boy had fallen from his bicycle, but at the time had had no skin abrasions or other apparent injuries. However, three days later he complained of general malaise and aching in the lumbosacral region. Five days prior to admission he had so much backache that he could not get out of bed. This was associated with fever, diarrhea, vomiting, epistaxis, and severe headache. His own physician treated him at home for the "flu," but when his condition failed to improve hospitalization was advised.

Examination on admission showed an acutely ill boy with a temperature of 105 degrees, a pulse of 130, and respirations of 36 per minute. He was lethargic, but resisted any attempts to change the position of his body or extremities. He lay on his right side and exhibited a mild degree of opisthotonos. The examination of the nose and throat revealed moderately enlarged tonsils, but no evidences of infection or inflammation. There was no redness or discharge in the ear canals. The pupils were equal and reacted well to both light and accommodation. There was a constant hippus and a very mild strabismus. A few non-

TABLE 1.—Lumbar Punctures

Date	Amount Re-moved	Kind of Fluid	Leukocyte Count	Culture Staphylococcus Aureus
Dec. 8	33 cc.	Thin pus		+++
Dec. 9	40 cc.	Pus		
Dec. 10	30 cc.	Pus	3,500	
Dec. 11	15 cc.	Thick pus	Thick pus	
Dec. 13	30 cc.	Clear	600	+
Dec. 14	30 cc.	Clear	870	+
Dec. 15	30 cc.	Clear	70	No growth

tender cervical glands were felt. Forced flexion of the head toward the sternum was attempted, but caused severe pain and muscle spasm without appreciable motion. Examination of the chest revealed no abnormalities of the heart or lungs. There was hyperesthesia of the skin of the entire abdomen, but no muscle rigidity and no palpable intra-abdominal masses or organs. There were no apparent abnormalities of the extremities, and their deep reflexes were all present but hypoactive. The Kernig test was bilaterally positive. Rectal examination revealed no abscess, and also no injury of the coccyx or lower sacrum.

The initial urine examination was positive for blood, pus, and bacteria, but subsequent examinations showed the urine normal. The leukocyte count on admission was 8,500. Shortly after admission a lumbar puncture was done and 30 cubic centimeters of purulent fluid under increased pressure was removed. The appearance of the fluid suggested meningococcus meningitis, so 3,000 units of antimeningococcus serum were immediately injected into the spinal canal. The following morning, before a laboratory report could be obtained, an additional 10,000 units of antimeningococcus serum were administered after removing 40 cubic centimeters of spinal fluid. This fluid contained so many leukocytes that, when allowed to settle in a centrifuge tube, over three-fourths of the volume was pus. Table 1 shows the schedule of lumbar punctures performed. A blood culture taken on December 9 produced a heavy growth of Staphylococcus aureus. When repeated on December 12, there was no growth. Table 2 is a record of the blood counts done and shows the degree of anemia produced.

This youth's treatment consisted of:

(a) Lumbar punctures (as enumerated in Table 1) to relieve intraspinal pressure.

(b) Adequate dosage of sulfanilamide as shown in Table 3.

(c) Restriction of fluid intake to 1,000 cubic centimeters daily to produce a high concentration of sulfanilamide in the body.

(d) Absolute bed rest and quiet, aided by doses of barbiturate as needed.

(e) Two transfusions of citrated blood.

### COMMENT

Our sole purpose in reporting this case is to emphasize the efficacy of sulfanilamide in treating a highly fatal disease, Staphylococcus aureus meningitis. We feel that the excessively large doses of the drug for this patient's body weight and age, coupled with the limited fluid intake, produced a high concentration of sulfanilamide in the body, with the resultant effectiveness. Recent work by

TABLE 2.—Schedule of Blood Counts

Date	Red Blood Cells	Hemoglobin	White Blood Cells
Dec. 9	4,300,000	81 per cent	8,500
Dec. 11	3,600,000	69 per cent	22,400
Dec. 20	3,250,000	74 per cent	12,100

TABLE 3.—Sulfanilamide Doses		
Date		Sulfanilamide
December 8	Grains	30
December 9	Grains	180
December 10	Grains	180
December 11	Grains	180
December 12	Grains	30
December 13	Grains	45
December 14	Grains	80
December 15	Grains	80
December 16	Grains	80
December 17	Grains	80
December 17	Discontinued	
Total .....		965 Grains

Stewart, et al.,<sup>9</sup> has supported our contention. Unfortunately, our laboratory was unable to perform the tests for sulfanilamide concentration in the blood at the time of this patient's illness, so the degree of cyanosis which was produced was our only guide. The sharp rise in temperature on December 11 was interpreted as a reaction to overdosage with sulfanilamide, and the daily dose was reduced from 180 grains to 30 grains. The temperature receded immediately, but it, as well as the pulse, soon increased and the boy became much sicker on the second day of this reduced dosage. Consequently, the amount was increased to 80 grains daily and this dosage maintained until the patient was symptomatically improved and the fever had receded.

This patient left the hospital twenty-two days after admission, apparently cured. There were no residual neurologic symptoms and no signs of any impairment of sensation, function or cerebration. A loss in weight of fifteen pounds seemed to be the only mark of his illness.

SUMMARY

A case of *Staphylococcus aureus* meningitis in a fourteen-year-old boy is reported. He was given 965 grains of sulfanilamide over a period of ten days. A complete recovery was made.

1515 State Street.

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THE LURE OF MEDICAL HISTORY<sup>†</sup>

JOHN TOWNSEND—THE PERIPATETIC PIONEER

By FRANCES TOMLINSON GARDNER  
*San Francisco*

PART III\*

IN PRIVATE PRACTICE

HE was now certain that he had moved for the last time. With enthusiasm he began to build up a practice. As 1847 brought more and more citizens to the town by the bay, Townsend began to assume the aspect of an old settler and to become a civic personage. In this year an earnest, if rather belated interest appeared in regard to some rearrangement of the facilities for the education of the children. At the time there were no facilities at all except such private instruction as they might get from one or another of the very few resident ladies who happened to possess a missionary spirit. In sudden realization that the future councilmen and aldermen were at that moment growing up illiterate, the influential citizens gathered together to quickly provide some means whereby the rudiments of an education could become the rule rather than the exception. Townsend, John Sirrine, William H. Davis, C. L. Ross and Dr. Victor Fourgeaud, lately arrived, were elected to form a school board. After much wrangling, several delays, and one or two changes in the personnel of the board, a school was opened in April, 1848. Under its imported teacher, William A. Douglas, who gained for his work the magnificent remuneration of \$400 per annum, the school prospered until June. In this upsetting month the rush to the mines closed the school; for, included in the exodus, were the teacher and most of the pupils.

During this year Doctor Townsend had built up an enviable practice. By 1848 he was traveling on horseback in a radius of fifteen miles around the city, attending American and Spaniard alike. His big body, astride a handsome horse, could be seen at any hour of the day or night en route to his patient or wending among the sand dunes on his late way home. This active professional life he trimmed with a touch of politics. In April, 1848, he was elected to the office of Superior Alcalde (mayor), and swept in on a wave of cheers; for he succeeded George Hyde, who subsided into private life in a murk of dissatisfaction and distrust.

LATTER-DAY ANALYSIS

What a psychiatrist would say today of the personality and character of John Townsend is another story, but it remains that his life pattern was so broken up by his trusting belief that any other pasture was greener, that his accomplishments were achieved more in spite of than because of him. Almost as soon as he took office, before he had time

<sup>†</sup> A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

\*For Part I, see September issue, CALIFORNIA AND WESTERN MEDICINE, page 171; for Part II, see October issue, page 246.



to get used to it, the stories of the miners in the hills undid him. Abandoning his office, to be proxied by T. M. Leavenworth, who finally succeeded him in October, 1848, he seized pick and shovel and was off to the mines. At the very moment when an intelligent, powerful hand might have saved the helpless infant city many a hard knock, Townsend turned from his duty to pursue a will-o'-the-wisp.

#### DOCTOR TOWNSEND'S SUBSEQUENT CAREER

In August he returned, little if any better off than when he left, and picked up his practice where he had let it drop. Such was his personality and his ability that he was elected a member of the Ayuntamiento (town council) for 1849, and soon after that was chosen its president. In this capacity he was instrumental in electing the first city physician.

The mines had failed him, but he was not discouraged. As the population increased with such rapidity, so the value of city lots began to rise. He saw, as he looked to the south of the city, a great hill overlooking the south and east, with the southern arm of the bay at its doorstep. It was called the Potrero Nuevo and was inhabited chiefly by goats. He entered into a partnership with a Dutchman named Cornelius de Boom to subdivide this section and make out of it a pleasant suburban settlement. Unfortunately, even in 1849, and in spite of its delightful climate, the Potrero would not mold itself into a suburban locality, and the deal fell to pieces.

By this time Townsend had tried everything he could think of in the way of speculation—public office, mining, and medical practice. True to his philosophy, he blamed not himself but his environment for his trouble, and prepared to move once more. He sold his house on California Street to De Boom, bought a piece of 195 acres on the Milpitas Road near San Jose, and, murmuring about the injustices of an honest existence, grumpily moved thereto.

One matter cheered his dissatisfaction. After sixteen barren years of marriage, Elizabeth gave birth to a husky son. Then Townsend built an adobe house which he hoped would be the home for himself and his descendants for generations, and laid out a carefully chosen garden while the little boy crept and toddled among the iris and the new rose bushes.

#### THE FORTY-NINER DAYS

So passed 1849. The year 1850 opened with a roar, and was a year of savage contrasts. The emigrants suffered that year more acutely than ever. In January came torrential rains in California, and with the rains came bitter cold and hunger. The ill-equipped emigrants, now turned miners, in flapping tents and leaky cabins, had no food, no heat, and no money. To them came all the evils of this unhappy condition. Tuberculosis, dysentery, scurvy, influenza, and the various kindred ills of malnutrition, so depleted them that every available medical man was fully occupied in scratching the surface of their misery. From Sacramento to Monterey every doctor slaved to save what lives and help what pitiful wrecks he could until at last spring came, the weather changed, and life began again.

The relief was not for long. Far out on the plain, creeping slowly but irresistibly closer, was a greater evil. Cholera, bred in the crowded cities of the east; rapacious, virulent, epidemic, creeping into train after train of wagons as it left on its adventure, was running like a prairie fire. Silently it rushed across the plain, leaving wailing survivors in its path. Silently it crept into the poor tents and cabins of the miners in the hills, and silently it reached the cities where it was met by its foul relative, cholera from Asia. Desperately the doctors worked against it, and as the summer waned so ceased the cholera. One final slap it gave with the back of its hand as it passed. In December, 1850, John Townsend lay dead of it, and so did Elizabeth, his wife. And when the relatives came into the house they found the little boy playing quietly but cheerfully, unharmed, on the floor beside his mother's body!

The old adobe is gone now and the son is gone, too, but the memory of the robust, pioneering father is as clear today as when, ninety years ago, he strode about the sandy streets of the tiny village by the bay.

University of California Medical Library.

## CLINICAL NOTES AND CASE REPORTS

### LOBAR PNEUMONIA DUE TO STREPTOCOCCI

#### USE OF BLOOD FROM AN IMMUNIZED DONOR IN ITS TREATMENT

By HENRY J. KRAAYMES, M. D.  
Oakland

WITH the enormous advance in the diagnosis and treatment of lobar pneumonia, we still observe occasional types which cannot be expected to yield to typed serum administration. In the case history here presented, the patient had a lobar pneumonia, involving the right upper lobe and caused by type alpha and type gamma streptococci. There was obviously no point in administering anti-pneumococcal serum, and sulfanilamide was employed in the forlorn hope that it might act on the streptococci, although it was recognized that the chances were slim. While the patient was desperately ill, blood from a donor immunized against type alpha and type gamma streptococci was administered at the suggestion of Dr. A. P. Krueger, Professor of Bacteriology at the University of California. There was prompt improvement in the patient's status, leading to a rapid clinical recovery.

#### REPORT OF CASE

The patient was a business man, forty-eight years old, whose past history included pneumonia in 1918, amebic dysentery in the same year, and pneumonia again in 1930. He had a record of more than average indulgence in alcohol. The patient was first seen on February 3, 1939, when he came to the office for a general physical examination. In a routine x-ray examination the chest was found to be clear and the patient was pronounced in good general condition. On February 5, 1939, he complained of a sharp pain in the right parasternal region, becoming more severe upon deep inspiration. Physical examination revealed no abnormalities, although questioning elicited the fact that the patient had had a severe cold two weeks previously. On February 6 the patient developed a slight unproductive cough, he per-

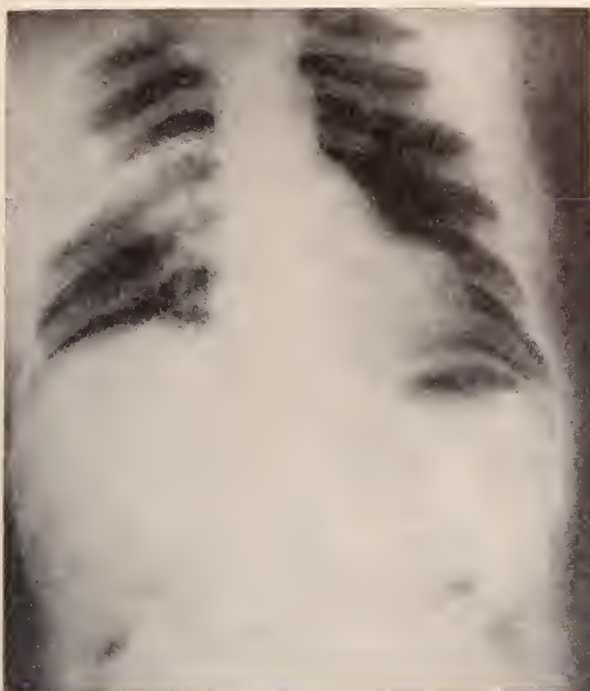


Fig. 1.—Bedside film of chest showing pneumonic infiltration in the right midlung.

spired freely and complained of persistent pain in the right parasternal region. His appearance was somewhat toxic, and examination revealed slight dullness on percussion over the right parasternal area in the region of the fourth and fifth rib, while a few moist râles were heard over this area. The temperature was 100.8 degrees, pulse 80, respiration 20, and it was deemed necessary to remove the patient to a hospital. His condition rapidly grew worse; he was decidedly toxic and was raising very little tough sputum containing no pneumococci, but very many short-chain streptococci. The white-cell count at this time was 20,500.

Intensive administration of neoprontosil was begun upon hospitalization. During the next few days the patient became very toxic, irrational, cyanotic, and dyspneic. The temperature rose to 103 degrees, pulse 114, and respiration 30. He was placed in an oxygen tent.

Pertinent laboratory findings were:

Sputum culture showed very many short streptococci of the alpha and gamma types, no beta hemolytic streptococci and no pneumococci. Repeated Neufeld typings were of no avail in the attempt to find pneumococci.

X-ray showed pneumonic infiltration in the right lung into what appears to be the periphery of the lower portion of the upper lobe. The density was very homogeneous in the periphery. The left lung field was clear.

After 120 cubic centimeters of 5 per cent neoprontosil had been given intramuscularly, the sulfanilamide therapy was continued with 60 grains of prontosil a day by mouth. However, the clinical picture became increasingly poor, the temperature remained high (103.4 by rectum), the pulse rate was 130 per minute, variable and of poor quality, respiration 36. The white count was 23,850 and blood culture was negative. Sulfanilamide therapy was discontinued because of the persistent cyanosis, severe headaches, and the blood findings. The red-cell count had dropped to 3,650,000 with 72 per cent hemoglobin; there was polychromasia and toxic granulation of the polymorphonuclear neutrophils.

On the advice of Doctor Krueger, the administration of citrated whole blood from a donor who had been immunized against type alpha and type gamma streptococci was undertaken. Three doses of 20 cubic centimeters each were given intramuscularly during the next twenty-four hours. After that one injection of 20 cubic centimeters was given every eighteen hours. Along with the usual pneumonia care the patient also received an ampoule of coramin every four hours, and 1000 cubic centimeters of 10 per cent glucose solution intravenously each day.

Within thirty-six hours the temperature began to drop and the patient became a little more rational; he was still very toxic and the quality of the pulse was poor. The white

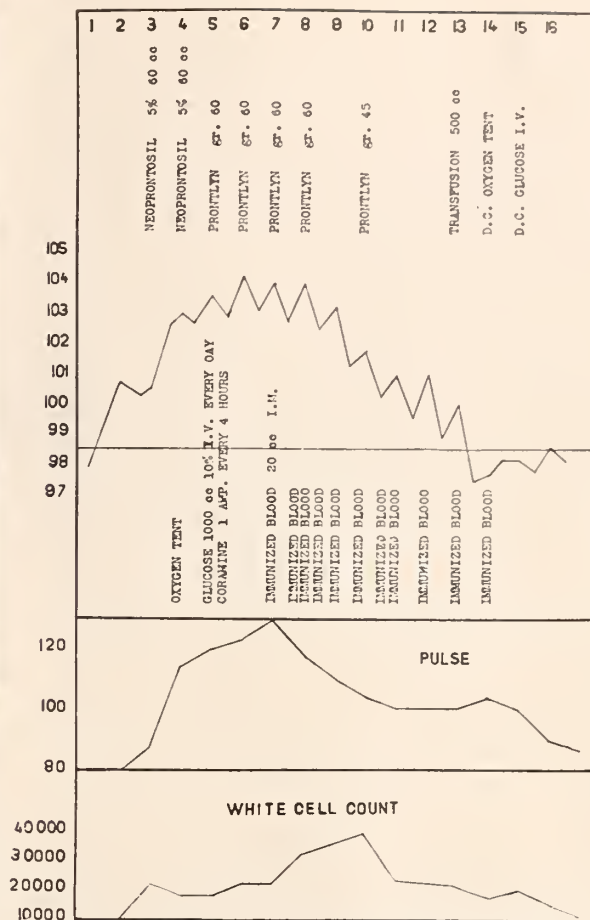


Chart 1.—Graphic chart showing the response of temperature, pulse and white cell count following the administration of immunized blood. Note, particularly, the prompt rise in white cell count.

cell count rose to 37,500, and x-ray examination revealed a slight increase in the pneumonic process in the right lung. Blood cultures remained consistently negative, and repeated sputum cultures continued to show large numbers of type alpha and type gamma streptococci.

On the eleventh day of hospitalization a transfusion of 500 cubic centimeters of normal blood was given by the indirect citrate method. Administration of immune blood in 20 cubic centimeters amounts intramuscularly every eighteen hours was continued, together with coramin and intravenous administration of glucose.

The patient improved greatly, and on the twelfth day of his illness he could be taken out of the oxygen tent for short periods without discomfort. On the thirteenth day of illness he received the eleventh and last injection of immune blood. The temperature was now 100 degrees; pulse 100, of fair quality; respiration, 22; and the white-cell count, 17,400. Further recovery was uneventful. X-ray examination of the chest before discharge from the hospital on the twenty-second day of illness showed the entire right lung field to be clear and fully aerated, with no evidence of fluid in either pleural cavity.

#### SUMMARY

A case of lobar pneumonia of a very toxic nature, involving only the right upper lobe, is reported. The total absence of pneumococci and the prevalence of type alpha and type gamma streptococci in the sputum cultures placed this type of pneumonia outside of the classification amenable to typed serum therapy. Sulfanilamide was given in the hope that it might be effective against the causal agents, although it was recognized that the chances were poor, since the organisms were of the non-hemolytic variety. Sulfanilamide seemed to have



no effect on the clinical picture and was discontinued because of severe toxic manifestations. Intramuscular administration of citrated whole blood from a donor who had been immunized against type alpha and type gamma streptococci was followed by a rapid improvement, and it is felt that the favorable outcome in this case must be ascribed to the effect of the immune blood. Doctor Krueger, from whom the blood was obtained, informs me that blood from donors (whom he immunizes against the various organisms by injecting undenatured bacterial antigens) has been used in the treatment of approximately five hundred cases of acute infection of various sorts. It is his opinion that the intramuscular injection of the blood establishes a depot in the tissues from which specific antibodies are absorbed, with resultant enhancement of the phagocytic activity of the reticulo-endothelial system. Nearly always there is a prompt rise in the white-cell count (in this case from 23,000 to 40,000) and a diminution in toxemia. In general, the earlier the blood was administered the better have been the results.

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## TRAUMATIC RUPTURE OF THE LIVER

### REPORT OF CASE

By MAX E. PICKWORTH, M. D.

*San Jose*

**R**UPTURE of the liver is one of the rarely reported surgical emergencies. Most patients so afflicted die without benefit of surgery, and are included in the general group of "death due to shock." Shock is no contraindication to exploration; in fact, continued shock should be an indication to operate.

Hemorrhage is the outstanding danger of hepatic trauma. Control of that hemorrhage has to be the primary object of treatment. We know that spontaneous hemostasis of ruptured liver is rare. There have been numerous methods, combinations of methods, and modifications devised for hemostasis, and from this fact no one method probably can be applied to all cases. In these emergencies one has to use whatever is at hand. We must bear in mind that, if hemorrhage can be controlled for seventy-two hours, we have more than likely accomplished our purpose. The methods more commonly available for application, such as suturing of the liver with or without the additional support of strips from the abdominal wall or omentum and packing with gauze, are generally sufficient. However, most cases reported, in which packing and drainage were used, have had complications of abscess or secondary hemorrhage.

Adjuncts to the above would be compression of the portal vein, as employed by Pringle in 1908, for temporary control of hemorrhage. McDill, in 1912, clamped the vessels of the gastrohepatic omentum with an enterostomy clamp, and he states that procedures can thus probably be made entirely bloodless for eight to ten minutes with safety.

The liver's large size, its friability and its fixed position render it particularly vulnerable to external force. Anteroposterior compression is probably the most common cause of laceration.

According to Moynihan, subcutaneous wounds of the liver are of three kinds:

1. Rupture of liver with laceration of Glissons' capsule;
2. Separation of the capsule with subcapsular hemorrhage; and
3. Central rupture, leading to hematoma, and thence to abscess or cyst formation.

He further states that the right lobe is injured six times as often as the left.

When traumatized the liver has a tendency to split or crack in a stellate manner, with massive hemorrhage, and spilling of varying amounts of bile. These are the cases belonging to the first class, and the ones in which mortality is high unless operated within the first few hours. Those cases coming to operation several days following injury belong to the second and third classes.

Robertson and Graham report a case of subcapsular hemorrhage operated on twenty-seven days following injury. Christopher reports a case of primary subcapsular hemorrhage, with spontaneous rupture of the capsule on the operating table, within twenty-four hours of injury.

Frequently other abdominal viscera or thoracic organs and diaphragm are also injured, thus producing serious complications which may mask symptoms referable to the injured liver. Even in these cases much is to be hoped for by immediate and adequate surgery. This is borne out by the unusual and dramatic case reported by Gemmil and Martin. The patient, a woman of twenty-six, was injured by an automobile. There was evisceration of the intestine, severe laceration of the liver, and torn right kidney. The intestine was returned to the abdomen, and the liver and kidney were sutured, followed by an uneventful recovery in forty-six days.

Mortality figures for rupture of the liver run as high as 80 per cent in operated cases. Factors influencing mortality:

1. Acute anemia and shock.
2. Injuries to other viscera.
3. Paralytic ileus due to trauma or bile leakage.
4. Failure to estimate the gravity of the situation when first seen. Occasionally a trivial trauma may cause rupture, or severe hepatic injury may be accompanied by relatively insignificant primary symptoms, as in the case reported by Robin. A man fell across a ditch, striking his abdomen. He had only slight discomfort, walked to his car and was driven home. More than twelve hours later he was found to be bleeding severely from hepatic rupture. (This case may have been similar to the one reported by Christopher).
5. Failure to give the utmost attention to post-operative care.

The diagnosis of rupture of the liver may be difficult. A history of injury in the hepatic region always should make one suspect rupture of the liver. The differential diagnosis between visceral injury and simple shock or simple injury to the abdominal wall must be made. Repeated blood counts will aid greatly in this differentiation.

### SYMPTOMS

1. Pain in right upper quadrant or generalized, with pain referred to right shoulder or back.

2. Board-like rigidity and exquisite tenderness over the involved area, as a rule.
3. Increase in liver dullness.
4. Dullness in flanks, if there is marked hemorrhage.
5. Shock due to the impact or due to flooding of peritoneal cavity with blood and bile.
6. Sharp rise in white blood cells and fall in red blood cells.
7. Jaundice: This is of relatively late development, coming on two to three days after injury.

#### TREATMENT

The treatment of diagnosed or strongly suspected rupture of the liver is immediate laparotomy with repair of the lesion. Shock is not a contraindication to immediate operation. As Deaver states, it is safer to subject the patient to the added burden of an operation than to the added burden of continued hemorrhage. Transfusions before, during, and after operation are advisable where there has been considerable blood loss. Autotransfusions have been used, but are indicated only if blood cannot be obtained from other sources; and then care must be taken to ascertain that there is no injury to hollow viscera.

Postoperative measures are aimed at treatment of the damaged liver by glucose intravenously, the treatment of the anemia, and the prevention or treatment of ileus and distention by adequate measures. All aid in the reduction of mortality in these cases.

#### REPORT OF CASE

A. S., age 21, admitted to hospital at 7:45 p. m., following an automobile accident on July 20, 1938. I first saw the patient at 9 p. m., at which time he was complaining of severe pain in abdomen and right shoulder. Examination revealed a well-developed and nourished white male, obviously in shock. Skin was cold and clammy.

Head: Abrasion on right side of face; laceration of chin.

Lungs: Clear to auscultation and percussion.

Cardiovascular: Heart rate regular. Tones poor. Blood pressure, 65/0. Respiration 40. Pulse not discernible.

Abdomen: Somewhat distended. Rigid in upper abdomen. Dullness in both flanks. Slight palpation or percussion over right upper quadrant caused severe pain.

Diagnosis.—Shock; probable ruptured liver.

Treatment.—Immediately instituted for shock. One thousand cubic centimeters of 10 per cent glucose in saline was given by vein. Blood pressure came up to 130/70 and pulse to 95. Red blood count revealed 2,500,000; 40 per cent hemoglobin; 22,900 white blood cells. The patient was typed for transfusion. The improvement was of short duration. The pulse and respiration became more rapid and weak. Blood pressure dropped again to 70/0. By midnight two donors had been found, so the patient was taken to surgery and transfused with 500 cubic centimeters of whole blood. Immediately, and without removal of the patient from the cart, he was anesthetized and prepared for exploratory laparotomy.

Operation.—Upper right rectus incision was made, and upon opening the peritoneum a large quantity of blood gushed forth. There was approximately 1000 to 1500 cubic centimeters of blood in the peritoneal cavity. The stomach and intestines were packed off, and exploration revealed two rents in the right lobe of the liver. One rent extended from the margin of the liver down to the cystic duct, the other rent was lateral to the first and only about four centimeters in length. Both were bleeding profusely. Both rents were closed with overlapping mattress sutures of plain No. 1. catgut, and the bleeding controlled. The patient's respiration had dropped to about 10 per minute, and general condition was so poor that immediate closure of abdomen by interrupted through and through sutures of No. 4 dermal was effected. Blood pressure during operation went from 100/98 to 62/40. Respiration ranged from 40 to 10.

Ten per cent glucose in saline continuously by vein was started immediately after operation. Condition remained precarious for twelve hours, but, finally, blood pressure came up to 110/70. On the afternoon following operation it was deemed advisable to transfuse the patient with 500 cubic centimeters of citrated blood. Red blood count, following this transfusion, was 3,250,000; hemoglobin 61 per cent. The temperature curve went up to 104.6, pulse 172, respiration 40, during the first twenty-four hours. On June 22, 1938, continuous gastric drainage was instituted because of ileus. This was relieved in twenty-four hours. On June 23, 1938, blood count revealed 2,600,000 red blood cells, 61 per cent hemoglobin, 7,200 white blood cells, so another 500 cubic centimeters transfusion was given. The patient continued to complain of pain in the left lower chest and left shoulder, and had a temperature of 102 till July 11, 1938, which was eighteen days postoperative. However, x-ray of the chest revealed no pathology, and diaphragm was at normal level. Shifting dullness in abdomen was to be found until July 15, 1938. The patient was discharged from the hospital on July 19, 1938, still jaundiced, but otherwise quite well, twenty-eight days postoperative. When last seen, on November 20, 1938, the patient was well and had been back on his regular job for a little over two months. His wound was well healed, without evidence of any hernia at that time.

#### COMMENT

More cases of this type should be explored. Shock, and what appears to be a hopeless situation, should not deter one from giving a patient the benefit of surgery. Careful attention to postoperative treatment undoubtedly plays a big rôle in the recovery of these patients.

Medico-Dental Building.

#### RECTAL FOREIGN BODY

By DUDLEY SMITH, M. D.  
San Francisco

THE accompanying photograph, "believe it or not," shows an extraordinary foreign body removed from the rectum. It consists of a piece of garden hose, eleven inches long, and an inch and a quarter in diameter, the distal end of which had been split up six inches, a longitudinal strip removed, and it was then bound tightly with cord to close the lumen. A yellow toy balloon, filled with water, had been drawn over the hose, the neck being tightly tied to prevent escape of the water. The balloon had on it a picture of the Golden Gate Bridge.

#### REPORT OF CASE

On the morning of July 26, 1938, the patient, a man, age 59, stated he was using the instrument "to massage the prostate"; and as he stepped out of the bathtub he fell on the edge of the tub, forcing the entire gadget into the rectum. Eight hours later I was consulted, and could just reach the hose by digital examination. It was easy to remove by grasping it with a Kocher hemostat. Although the upper end had entered the gut fourteen inches, no perforation resulted—probably due to the soft, smooth water-filled tip of the balloon.

This is, no doubt, the first time the Golden Gate Bridge has been pulled out of the rectum!

450 Sutter Street.

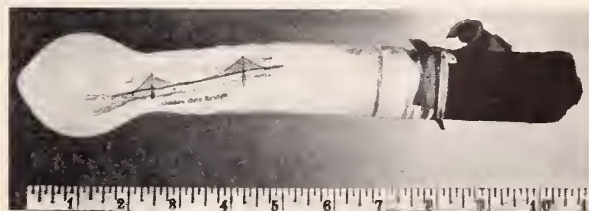


Fig. 1.—Rectal foreign body.



# CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

## CALIFORNIA MEDICAL ASSOCIATION†

CHARLES A. DUKES.....President  
HARRY H. WILSON.....President-Elect  
LOWELL S. GOIN.....Speaker  
KARL L. SCHAUPP.....Council Chairman  
GEORGE H. KRESS.....Secretary and Editor

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5. *California Physicians' Service.*
6. *County Society Reports.*
7. *Woman's Auxiliary.*
8. *Nevada State Medical Association.*

## COUNCIL OF THE CALIFORNIA MEDICAL ASSOCIATION

### Minutes of the Two Hundred and Seventy-Ninth (279th) Meeting of the Council of the California Medical Association

The meeting was held in the Auditorium of the Los Angeles County Medical Association Building, 1925 Wilshire Boulevard, Los Angeles, at 9 a. m., Saturday, October 7, 1939.

#### 1. Call to Order.

The meeting was called to order by Chairman Schaupp.

The following members were present: President Charles A. Dukes, President-Elect Harry H. Wilson, Past-President William Roblee, Chairman of Council Karl L. Schaupp; Councilors Calvert L. Emmons, George D. Maner, Louis A. Packard, Axcel E. Anderson, C. Kelly Canelo, O. D. Hamlin, Frank A. MacDonald, Henry S. Rogers, C. O. Tanner, William H. Kiger, P. K. Gilman, E. Earl Moody, Elbridge J. Best, F. N. Scatena; Chairman of Public Relations Committee George G. Reinle; Secretary-Editor George H. Kress; and General Counsel Mr. Hartley F. Peart and his associate, Mr. Howard Hassard.

Absent: Speaker Lowell S. Goin.

#### 2. Minutes.

It was moved by Henry S. Rogers, seconded by Charles A. Dukes, that the minutes of the 278th meeting of the Council be approved. Motion carried.

#### 3. Basic Science Initiative.

J. Norman O'Neill, member of the committee appointed by the Committee on Public Relations, appeared before the Council on behalf of the proposed Basic Science Law, and outlined the attitude of the professions toward the bill and the desirability of placing the same before the people at the General Election in November, 1940. Further discussion of the proposed Basic Science initiative was postponed until after luncheon.

#### 4. Financial.

Copies of the financial statements for the month of September, 1939, which had been previously sent to the members of the Council were presented and, on motion, duly seconded, were approved as submitted.

#### 5. Medical Library Appropriations.

The Council's attention was called to a budget error made during the previous administration, in listing the amount of the allocations for the support of the Lane Medical Library and the Barlow Medical Library of Los Angeles. The two libraries had each received 12½ cents per member in 1938, but in that year were entitled to 25 cents per member. The attention of the Council Chairman and the Chairman of the Auditing Committee having been called thereto, those officers had authorized the Secretary-Treasurer to pay 25 cents per member for the year 1939 to compensate for the error.

It was moved by Harry H. Wilson, seconded by Charles A. Dukes, that the action of the Chairman of the Council and the Chairman of the Auditing Committee in their interpretation of budgetary allowances for Lane and Los Angeles County libraries be approved. Carried.

#### 6. Per Diems.

Doctors Schaupp and Dukes spoke of the necessity of curtailment of expenses of the Association, with special reference to the action of the House of Delegates in the adoption of an amendment to the By-Laws at the Del Monte 1939 session of Resolution No. 16, which authorized a \$10 per diem payment to councilors and officers when on Association business. In discussion, it was pointed out by Councilors that, although the payment of the per diem by the Association was mandatory according to the amendment, the acceptance by the councilors and officers was not mandatory.

#### 7. Hearing.\*

At this point the Chairman of the Council announced that the Council was convened pursuant to resolution adopted at its meeting held August 5, 1939, at San Francisco, to hear the appeal of a member of the Los Angeles County Medical Association.

Mr. Middleton, court reporter, was directed to make a record of the hearing.

The hearing then proceeded. At the conclusion of the hearing the Council Chairman stated that the appeal of the Council would be considered and determined at a subsequent meeting.

Reporter Middleton was instructed to prepare one original and two carbon copies of the transcript of the proceedings of the hearing.

#### 8. Annuity Insurance.

The Secretary reported on annuity insurance carried by employees in accordance with the instruction of the 1937 Special Committee on Association Expenditures, and stated that when the plan was inaugurated an employment service of two years was laid down as the condition under which the State Association would pay one-half of the annual

† For complete roster of officers, see advertising pages 2, 4, and 6.

\* This is a digest of this item in the minutes. Complete minute and transcript of the hearing are on file in the Central Office.

premium. On December 1, 1939, another employee, Miss Smith, would become eligible under the former rule. The Secretary-Treasurer asked for instructions.

It was moved by Charles Dukes, seconded by F. N. Scatena, that payment of one-half the premium of annuity insurance for Miss Smith by the California Medical Association be approved, the amount at the present time being \$48.44. Carried.

#### 9. Social Security Taxes.

The Secretary reported that, in accordance with a recent demand from the United States Collector of Internal Revenue, and upon advice of the Legal Counsel, the California Medical Association had paid taxes under Title IX of the Social Security Act in the amount of \$1,202.21, including penalties assessed for nonpayment in the years 1936, 1937, and 1938.

The Legal Counsel submitted a report stating that the tax was levied on the basis of the theory that all officers of the Association are employees, which ruling the Legal Counsel believed to be in error, and that he, therefore, believed the tax had been wrongfully assessed. Counsel Peart stated the Association now had recourse to filing a claim for a refund. If the refund claim was denied, action might then be commenced in the federal court for recovery of taxes paid.

It was moved by Henry Rogers, seconded by Elbridge Best, that the California Medical Association follow the advice of the General Counsel and proceed as outlined in his report, dated September 20, 1939. Carried.

#### 10. Minutes of Public Relations Committee.

The minutes of the Committee on Public Relations, with reference to its work on a basic science law, medical defense and malpractice premium problems, laws, news releases, and state and county fairs, as published in CALIFORNIA AND WESTERN MEDICINE, were brought to the attention of the Council.

It was moved by Charles Dukes, seconded by Henry Rogers, that the minutes be received and placed on file. Carried.

#### 11. California State Dental Association.

Secretary Kress stated that letters had been received from the Northern California State Dental Association and the Southern California State Dental Association, expressing their interest and willingness to cooperate in the sponsoring of a Basic Science Act for California, and stating that the proposed act would be considered by their joint legislative committees.

#### 12. Exhibits.

The preservation of the California Medical Association Cancer Exhibit now at the Golden Gate International Exposition, and the securing of exhibits from other exhibitors, to be used as a nucleus for a California Medical Association exhibit to be displayed at state and county fairs, was discussed.

It was moved by Charles A. Dukes, seconded by O. D. Hamlin, that the matter of exhibits at the Golden Gate Exposition, with reference to preservation of the California Medical Association exhibit and the securing of other desirable exhibits, be referred to the Committee on Public Relations, and that any expense in connection therewith be allocated to the budget of the Department of Public Relations. Carried.

#### 13. Luncheon Recess.

At this time the Council recessed for luncheon.

#### 14. California Physicians' Service.

After luncheon, Dr. T. Henshaw Kelly, member of the Board of Trustees of California Physicians' Service, reported on the present status of the organization.

Dr. Alson R. Kilgore, Trustee, presented a résumé of the work that had been done, and of the expenditures of the organization.

Doctor Kelly then asked for financial assistance, in the form of a loan to the California Physicians' Service by the California Medical Association, in addition to the \$15,000 already loaned.

It was moved by Louis Packard, seconded by Charles Dukes, that the California Medical Association loan \$6,000 per month, beginning as of December 1, 1939, for the months of December, 1939 and January, 1940. Carried.

It was agreed the Council should meet in January and decide on further action.

Upon motion of Charles A. Dukes, seconded by A. E. Anderson, the following resolution was unanimously adopted by the affirmative vote of all members present:

*Resolved*, That this Association, California Medical Association, hereby requests the board of directors of the Trustees Of The California Medical Association, a California nonprofit corporation, to authorize and direct Junius B. Harris, Lemuel P. Adams, and Howard Morrow, as trustees of the Indemnity Defense Fund, and that this Association hereby requests said trustees of the Indemnity Defense Fund to loan to this Association, the sum of \$20,000; said sum to be repaid on or before three years from the date of said loan and to bear interest at the rate of three per cent per annum; and be it further

*Resolved*, That upon receipt of the amount of said loan and upon request therefor, this Association lend said sum, or any part or portion thereof, to California Physicians' Service to be repayable by it on or before three years from the date of said loan with interest at the rate of three per cent per annum. . . .

#### 15. California Physicians' Service.

C. Kelly Canelo then reported on the status of the California Physicians' Service, and made the following requests: That California Physicians' Service be accepted as one of the Public Health Education projects, thereby making publicity services available; that councilors attend the annual meeting of the administrative members of California Physicians' Service to be held at the Hotel Californian, Fresno, California, Saturday, October 14, 1939, at 10 a. m.; and, following this annual meeting, the councilors be requested to visit their county societies to personally apprise them of the status and progress of California Physicians' Service.

#### 16. Sacramento Society for Medical Improvement.

The resolution of the Sacramento Society for Medical Improvement, relative to cooperation with California Physicians' Service, as passed at a special meeting of that component county society on August 15, 1939, was read.

The letter of August 22, 1939, from Legal Counsel Peart to Councilor F. N. Scatena, regarding California Physicians' Service was also read.

After full discussion, it was moved by George D. Maner, seconded by E. Earl Moody, that it is the opinion of our Council that the resolution of the Sacramento Society for Medical Improvement, relative to the California Physicians' Service, is in contravention to the by-laws of the California Medical Association and to the action of the House of Delegates taken in the formation of California Physicians' Service, and that they be requested to rescind the resolution of August 15, 1939. Carried.

#### 17. Committee on Public Health Education.

Samuel Ayres, Jr., reported on the activities of the Committee on Public Health Education. Doctor Ayres stated that their present budgeted expenditures amount to approximately \$24,200, leaving a balance in the fund of approximately \$30,800. Doctor Ayres stated that this would probably be sufficient to cover all expenditures for one year, but that, if the work was to be continued, and if any fund was to be built up for unforeseen contingencies, income through assessment or otherwise would have to be provided.



Mr. Ross Marshall, publicity manager, reported on activities carried on under his supervision, including publicity in education of the public on legislative matters, formation of speakers' bureaus in county medical societies and various clubs, newspaper publicity, etc.

Mr. Ben Read, of the Public Health League of California, also spoke on the work carried on by the League.

#### 18. Speaker for Santa Rosa Forum Meeting.

Discussion was had of the request for a speaker at Santa Rosa. It was pointed out that this was to be a debate, and that the policy of the Association was not to participate in controversial debates which are publicized as such. It was felt that the Committee on Public Health Education, through its Speakers' Bureau, should furnish speakers for meetings where the prime motive was to supply public health and associated information to the public.

It was moved by Charles Dukes, seconded by George Reinle, that the request for a speaker to appear at Santa Rosa be referred to the Chairman of the Committee on Public Health Education, Dr. Frank Makinson. Carried.

#### 19. Basic Science Initiative.

George Reinle, Chairman, and members Norman O'Neill and Donald Cass, of the Committee on Public Relations, discussed the proposed Basic Science initiative and its relation to other prospective legislation.

It was moved by Charles Dukes, seconded by O. D. Hamlin, that the Public Relations Committee be instructed to continue its studies on this Act and report further to the Council in January.

#### 20. Committee on Survey of Association Offices.

Elbridge Best read the preliminary report of the Survey Committee appointed by Speaker Goin (Drs. Elbridge Best (chairman), George D. Maner and Dewey R. Powell), submitted in compliance with Resolution No. 1 of the House of Delegates at Del Monte on Survey of Association offices.\*

#### 21. Membership.

Discussion was had with respect to the status under the by-laws of the California Medical Association of two members of the Santa Barbara County Medical Society who transferred their residence to Kern County and, according to information received from the Kern County Medical Society, had not presented their transfer cards within one year after such change of residence.

It was pointed out that Section 10 of Chapter II of the by-laws of the California Medical Association requires that any member transferring residence from one county to another must present a transfer card to the county society in the county of his new residence within one year after such change of residence. It was also pointed out that if a member who has transferred his residence complies with Section 10 and within a year presents a transfer card but is rejected by the county society to which he applies, he may retain membership in the society of his former residence if that society so desires. It was the sense of the Council that, in view of the fact that the members under discussion had failed to present a transfer card within one year, this portion of Section 10 does not apply.

Thereupon the Secretary was instructed to notify the Santa Barbara County Medical Society and the doctors concerned that the Santa Barbara County Society may not hereafter accept dues from said doctors and may not carry them on its membership rolls as members of the Santa Barbara County Medical Society or as members of this Association.

#### 22. Farm Security Board.

Chairman Schaupp, member of the Advisory Board of the Agricultural Workers' Health and Medical Association

of the Farm Security Administration, presented the report of his Board.

It was moved by Charles A. Dukes, seconded by Louis Packard, that the report be accepted, with thanks, and the Board be notified that notice has been taken regarding improper charges. Carried.

#### 23. Retired Membership.

It was moved by Charles A. Dukes, seconded by E. Earl Moody, that retired membership be granted Mark A. Williamson, member of the Kern County Medical Society, in accordance with the request of the Kern County Medical Society. Carried.

It was moved by William Roblee, seconded by Charles A. Dukes, that Ruggles A. Cushman, member of the Mendocino-Lake County Medical Society, be granted retired membership in the California Medical Association, in accordance with the request of the Mendocino Lake County Medical Society. Carried.

#### 24. Washington Semi-Centennial Jubilee.

It was moved by Charles A. Dukes, seconded by E. Earl Moody, that the Auditing Committee be granted authority to approve proper expense in connection with the attendance of President-Elect Wilson at the Washington State Medical Society Semi-Centennial Jubilee session. Carried.

#### 25. Medical and Surgical Indemnity Insurance Policies.

In accordance with the suggestion of the General Counsel, the matter of fee-schedules of insurance companies issuing medical and surgical indemnity policies was referred to the Executive Committee for study and action.

#### 26. Smith vs. Kern County Medical Society.

General Counsel Peart reported that Dr. Joe Smith had entered an appeal in the case of *Smith vs. Kern County Medical Society*.

#### 27. Adjournment.

There being no further business, the meeting adjourned.

KARL L. SCHAUPP, *Chairman*.  
GEORGE H. KRESS, *Secretary*.

### ANNUAL VISITATION TOURS TO COUNTY MEDICAL SOCIETIES

The plan of having the President and President-Elect make annual visitation tours to the component county units of the California Medical Association has become a well-established custom during the last several years.

Last year President W. W. Roblee of Riverside visited the county societies north of the Tehachapi, and President-Elect Charles A. Dukes of Oakland included in his tour the county societies in the southern part of the state.

This fall, President Charles A. Dukes, in company with the councilors of the districts to be visited, the Association Secretary, and guest speakers, will visit the county societies north of the Tehachapi, and in January and February President-Elect Harry H. Wilson of Los Angeles, with a similar party, will cover a schedule of visits in the southern counties of California.

Owing to the demands upon the time of the visiting officers, a weekly schedule is arranged for county units where travel conditions so indicate. Other county societies will be visited at other times, on dates mutually convenient.

President Dukes' schedule of visits for the period November 2 to 6 is given in the accompanying table. He will be joined by Councilors Henry S. Rogers from Petaluma, Frank A. MacDonald and Frederick N. Scatena of Sacramento, and Association Secretary George H. Kress. These officers will give informal talks on organization problems and matters of allied nature.

\* See also comment, "Current Issue of Official Journal: Changes in Contents and Format," on page 290.

Visitation Itinerary to County Medical Societies (Humboldt, Siskiyou, Shasta, Butte, and Yuba-Sutter)					
Day	Date	Place	County	District Councilor	County Secretary
Thursday	November 2	Eureka	Humboldt	Dr. Rogers	Dr. Woolford
Friday	November 3	Yreka	Siskiyou	Dr. Rogers	Dr. Hart
Saturday	November 4	Redding	Shasta	Dr. MacDonald	Dr. Murphy
Sunday	November 5	Chico	Butte	Dr. MacDonald	Dr. Chiapella
Monday	November 6	Marysville	Yuba	Dr. MacDonald	Dr. Swift

They will be joined by two guest speakers who will give talks on scientific topics:

Dr. Albert H. Rowe of Oakland, who, at Yreka and Eureka, will talk on Clinical Allergy; and

Dr. Dwight L. Wilbur, who, at Redding and Chico and Marysville, will speak on one of several topics: (1) Treatment with Vitamins. (2) Common Forms of Indigestion. (3) The Use of Sulphanilamide and Sulphapyridine in Practice. (4) Headaches from the Internist's Standpoint.

MEETING DAYS OF COUNTY SOCIETIES

Component County Medical Societies of the California Medical Association, according to the roster information printed on advertising page 4 of each issue of CALIFORNIA AND WESTERN MEDICINE, hold their monthly meetings as indicated in the following schedule:

- Society Meeting on the First Monday includes:  
Santa Cruz.
- Societies Meeting on the First Tuesday include:  
Fresno, Orange, San Bernardino. San Francisco, Yolo-  
Colusa-Glenn, and Yuba-Sutter.
- Society Meeting on the First Wednesday includes:  
Napa.
- Societies Meeting on the First Thursday include:  
Humboldt, Los Angeles, Monterey, San Joaquin.
- Societies Meeting on the Second Monday include:  
Kings, Riverside, Santa Barbara, Shasta.
- Societies Meeting on the Second Tuesday include:  
Contra Costa, San Diego, San Francisco, Solano, Ven-  
tura.
- Societies Meeting on the Second Thursday include:  
Butte, Sonoma.
- Society Meeting on the Second Friday includes:  
Stanislaus.
- Society Meeting on the Third Monday includes:  
Alameda.
- Societies Meeting on the Third Tuesday include:  
Imperial, Sacramento, San Francisco.
- Society Meeting on the Third Wednesday includes:  
Santa Clara.
- Societies Meeting on the Third Thursday include:  
Kern, Los Angeles, Merced.
- Society Meeting on the Third Saturday includes:  
San Luis Obispo.
- Society Meeting on the Fourth Tuesday includes:  
San Francisco.
- Societies Meeting on the Fourth Wednesday include:  
Inyo-Mono, San Mateo.
- Society Meeting on the Fourth Thursday includes:  
Marin.
- Society Meeting on Sunday, on Call:  
Siskiyou.
- Society Meeting on Sunday Evenings, on Call:  
Tulare.
- Societies Meeting on Call:  
Lassen-Plumas-Modoc, Mendocino-Lake, Placer, San  
Benito, Tehama.

HOTEL INFORMATION

Annual Session—Hotel del Coronado  
May 6–9, 1940

- Hotels in Coronado.
- Hotel del Coronado, Coronado, headquarters hotel. (American Plan.)
- El Cordova Hotel, 1351 Orange Avenue. (European Plan.) Accommodations for approximately 75 persons.
- Biltmore Hotel, 1017 Park Place, Coronado. (European Plan.) Accommodations for approximately 30 persons.
- The Ritz, 1121 Orange Avenue. (European Plan.) Ac-  
commodations for approximately 50 persons.
- Hotels in San Diego.
- San Diego Hotel, 339 West Broadway. (European Plan.) Accommodations for approximately 300 persons.
- U. S. Grant Hotel, 326 Broadway. (European Plan.) Accommodations for approximately 300 persons.
- El Cortez Hotel, Seventh and Ash. (European Plan.) Accommodations for approximately 160 persons.
- In addition to the above there are the following other hotels in San Diego:
- Pickwick Hotel, 132 West Broadway. (European Plan.) Two hundred and fifty rooms.
- Sandford Hotel, 1323 Fifth Avenue. (European Plan.) Two hundred rooms.
- Churchill Hotel, 827 C Street. (European Plan.) One hundred rooms.
- Embassy Hotel, 3645 Park Boulevard. (European Plan.) One hundred rooms.
- Casa Loma Hotel, 320 Fir. (American and European Plan.) One hundred rooms.

Hotel del Coronado, Coronado*		Rate per Day
Single room with bath.....	\$7.00 a person	
Single room without bath.....	6.00 a person	
Twin-bedded room with bath.....	6.50 a person	
Twin-bedded room without bath.....	5.50 a person	
Suite of two connecting rooms and one bath, for three persons.....	6.50 a person	
Suite of two connecting rooms and one bath, for four persons.....	6.00 a person	
For room with glass-enclosed porch (located on the ocean front) that can be used as a sitting room, add \$3 a day for the porch room.		
Above rates include all meals.		
These rates are effective for three or four days preceding or following the dates of the meeting.		

El Cordova Hotel, Coronado 1351 Orange Avenue European Plan		
Single room and bath.....	\$2.50 per day	
Double room and bath.....	3.50 per day	
Double room and bath (twin beds).....	4.50 per day	
Apartments with baths (two to four persons) .....	\$5.00 to \$10.00 per day	

\* When we are notified in advance of a definite time of arrival, we arrange through the hotel garage to have our guests met at the station or dock in San Diego and brought to the hotel without charge. The same applies when a guest departs. (Advise if coming by train, boat, plane or motor, and time.)



**Coronado Biltmore, Coronado**  
1017 Park Place

<i>European Plan</i>	<i>Rate per Day</i>
Single room and bath.....	\$2.00 per day
Double room and bath.....	3.00 per day
Double room and bath (twin beds).....	4.00 per day

**Ritz Hotel and Annex, Coronado**  
1121 Orange Street

<i>European Plan</i>	
Single room with bath.....	\$2.50 per day
Double room with bath.....	3.00 per day
Double room with bath (twin beds).....	3.50 per day
Room with one double and one twin bed with bath.....	4.00 per day
Room with two double beds and bath.....	4.50 per day
Single room without bath.....	\$1.50 and 2.00 per day
Double room without bath.....	2.50 per day

**Hotel San Diego, San Diego**  
339 West Broadway

<i>European Plan</i>	
Single room and bath.....	\$2.00 to \$4.00 per day
Double room and bath.....	3.00 to 5.00 per day
Double room with bath (twin beds).....	4.00 to 6.00 per day
Single room without bath.....	1.50 and 2.00 per day
Double room without bath.....	2.00 and 2.50 per day
Double room without bath (twin beds).....	3.00 per day
Suites.....	7.50 to 20.00 per day

**U. S. Grant Hotel, San Diego**  
326 Broadway

<i>European Plan</i>	
Single room and bath.....	\$3.00 to \$9.00 per day
Double room and bath.....	4.00 to 12.00 per day
Double room and bath (twin beds).....	4.50 to 12.00 per day
Single room and shower.....	2.50 per day
Double room and shower.....	3.50 per day
Double room and shower (twin beds).....	4.00 per day
Single room without bath.....	1.50 to 2.50 per day
Double room without bath.....	2.50 to 3.50 per day
Parlor suites.....	8.00 to 15.00 per day
Garage service.	

**El Cortez Hotel, San Diego**  
702 Ash Street

<i>European Plan</i>	
Single room and bath.....	\$3.50 to \$6.00 per day
Double room and bath.....	5.00 to 8.00 per day
Double room with bath (twin beds).....	6.00 to 8.00 per day
Country Club privileges to guests.	

**Pickwick Hotel, Inc., San Diego**  
132 West Broadway

<i>European Plan</i>	
Single room and bath.....	\$2.00 to \$3.00 per day
Double room and bath.....	3.00 to 4.00 per day
Double room and bath (twin beds).....	4.00 and 5.00 per day
Garage service.	

**The Sandford Hotel, San Diego**  
1323 Fifth Avenue, Fifth and A Streets

<i>European Plan</i>	
Single room and bath.....	\$2.00 and \$2.50 per day
Double room and bath.....	2.50 and 3.00 per day
Single room without bath.....	1.00 and 1.50 per day
Double room without bath.....	1.50 and 2.00 per day
Suites.....	4.00 to 6.00 per day
Garage service.	

**Hotel Churchill, San Diego**  
Ninth and C Streets

<i>European Plan</i>	
Single room and bath.....	\$2.00 to \$3.50 per day
Double room and bath (twin beds).....	3.50 to 4.50 per day
Single room without bath.....	1.50 to 2.00 per day
Double room without bath (twin beds).....	2.50 per day

**Embassy Hotel, San Diego**  
3645 Park Boulevard

<i>European Plan</i>	<i>Rate per Day</i>
Single room and bath.....	\$2.50 and \$3.00 per day
Double room and bath.....	3.50 and 4.00 per day
Double room and bath (twin beds)....	4.50 and 5.00 per day
Garage service.	

**Hotel Casa Loma, San Diego**  
320 Fir Street

<i>European Plan</i>	
Single room and bath.....	\$2.00 per day
Double room and bath.....	2.50 per day
Double room with bath (twin beds).....	3.00 per day
Single room without bath.....	1.50 per day
Double room without bath.....	2.00 per day
Suites.....	4.00 per day
Breakfast, a la carte. Dinners, 50 to 75 cents.	

**Maryland Hotel, San Diego**  
630 F Street

<i>European Plan</i>	
Single room with bath.....	\$2.00 per day
Double room with bath.....	2.50 per day
Double room with bath (twin beds).....	3.00 per day
Two-room suites with bath between (2 persons).....	3.50 per day
Two-room suites with bath between (3 persons).....	4.00 per day
Two-room suites with bath between (4 persons).....	4.50 per day
Single room (toilet and lavatory).....	1.50 per day
Double room (toilet and lavatory).....	2.00 per day
Coffee shop and dining room—Breakfast, 25 cents and up.	
Luncheon and dinner, a la carte.	
Garage facilities.	

## CALIFORNIA PHYSICIANS' SERVICE†

At the annual meeting of the administrative members held in Fresno on Saturday, October 14, both administrative members and deputy medical directors from throughout the state spent the entire day in studying contract provisions and procedures of California Physicians' Service.

It was announced at the meeting that approximately fifty groups are now under contract and receiving service in addition to the California State Employees' Association. While these include groups from San Diego to northern California, most of them are, so far, in the metropolitan areas.

Arrangements are being carried forward to extend negotiation for groups through all parts of the state as rapidly as possible. But, it must be borne in mind that to do this requires careful training and supervision of personnel in order that representation of California Physicians' Service shall be fair, correct, and complete. Building up such a personnel will necessarily take some time.

It would be appreciated if professional members would exercise particular care in answering questions for beneficiary members or prospective beneficiary members. Many of the questions asked of doctors will involve interpretation of rules and contract provisions (*e. g.*, interpretation of what is meant by preëxisting conditions in reference to a particular case). In order to avoid confusion, it is essential that the answers to such questions be uniform throughout the state, and until a sufficient volume of experience has been obtained such questions should be referred to deputy medical directors.

Perhaps the most frequent source of confusion will be interpretation of the clause in membership contracts, excluding care for "preëxisting conditions." The intent of this clause is to prevent individuals from subscribing to

†Address: California Physicians' Service, 220 Montgomery Street, San Francisco. Telephone: EXbrook 3212. Manager, Mr. Allen Widenham.

Service for the purpose of securing treatment the need of which is already apparent. It will be the policy of the California Physicians' Service to interpret this clause fairly and in good faith. If a member joins in good faith, only to discover later some condition which we, as doctors, know must have had its origin before membership in California Physicians' Service, but which gave no indication of its presence before that time, California Physicians' Service will not fall back on the "preëxisting conditions" clause to avoid rendering service.

It is impossible to anticipate every question or every case that may arise. Until the sufficient volume of experience has been built up, it is essential that such decisions be made by the medical director in order that rulings be uniform throughout the state.

#### MEDICAL DIRECTORS

Morton R. Gibbons, M. D., State Medical Director.  
E. Vincent Askey, M. D., Assistant Medical Director.

#### DEPUTY MEDICAL DIRECTORS

*District No. 1—San Francisco, San Mateo, and Marin counties:*

W. H. Winterberg, M. D.

*District No. 2—Los Angeles County—City of Los Angeles and Hollywood:*

A. B. Cooke, M. D.

*District No. 3—Alameda and Contra Costa counties:*

Daniel Crosby, M. D.

*District No. 4—Los Angeles County (Northwest):*

Richard J. Morrison, M. D.

*District No. 5—Santa Clara and Santa Cruz counties:*

Fred S. Ryan, M. D.

*District No. 6—Los Angeles County (Northeast):*

Morrill L. Illsley, M. D.

*District No. 7—Lake, Mendocino, Napa, Solano, and Sonoma counties:*

Henry S. Rogers, M. D.

*District No. 8—Los Angeles County (South):*

Calvin A. Lauer, M. D.

*District No. 9—Del Norte and Humboldt counties:*

Carl Wallace, M. D.

*District No. 10—Orange County:*

Merrill Hollingsworth, M. D.

*District No. 11—Fresno, Inyo, Kings, Madera, Mariposa, Merced, Mono, and Tulare counties:*

E. R. Scarboro, M. D.

*District No. 12—San Luis Obispo, Santa Barbara, and Ventura counties:*

Benjamin Bakewell, M. D.

*District No. 13—Alpine, Amador, Calaveras, San Joaquin, Stanislaus, and Tuolumne counties:*

R. S. Chapman, M. D.

*District No. 14—Imperial and San Diego counties:*

Hall G. Holder, M. D.

*District No. 15—Eldorado, Nevada, Placer, Sacramento, Sierra, Sutter, and Yuba counties:*

Robert A. Peers, M. D.

*District No. 16—Kern County:*

L. A. Packard, M. D.

*District No. 17—Butte, Colusa, Glenn, and Yolo counties:*

Daniel Moulton, M. D.

*District No. 18—Riverside and San Bernardino counties:*

P. M. Savage, M. D.

*District No. 19—Shasta, Siskiyou, Tehama, and Trinity counties:*

F. L. Doane, M. D.

*District No. 20—Monterey and San Benito counties:*

Garth Parker, M. D.

*District No. 21—Lassen, Modoc, and Plumas counties:*

Fred J. Davis, Sr., M. D.

At the meeting on October 14 two new administrative members were elected: Mrs. A. C. Mattei, National Presi-

dent of Pro-America, and Mr. John Lawler, Vice-President of the Agricultural Council of California.

#### ADMINISTRATIVE MEMBERS

A. E. Anderson, M. D., Fresno (District 11).  
Samuel Ayers, Jr., M. D., Los Angeles (District 2).  
William L. Bender, M. D., San Francisco (District 1).  
Mr. E. Manchester Boddy, Los Angeles (District 2).  
Lewis J. Bolander, M. D., Van Nuys (District 4).  
James B. Bullitt, M. D., San Jose (District 5).  
Rev. Ernest Caldecott, Los Angeles (District 2).  
C. Kelly Canelo, M. D., San Jose (District 5).  
John S. Chain, M. D., Eureka (District 9).  
Clinton D. Collins, M. D., Fresno (District 11).  
C. Glenn Curtis, M. D., Brea (District 10).  
L. P. Davlin, M. D., Gonzales (District 20).  
J. F. Doughty, M. D., Tracy (District 13).  
N. T. Enloe, M. D., Chico (District 17).  
Mr. Carl C. Erickson, Los Angeles (District 2).  
Harry G. Ford, M. D., Richmond (District 3).  
Mr. John Anson Ford, Los Angeles (District 2).  
Hugh F. Freidell, M. D., Santa Barbara (District 12).  
William Gibbs, M. D., Glendale (District 6).  
Lowell S. Goin, M. D., Los Angeles (District 2).  
Percival A. Gray, Jr., M. D., Santa Barbara (District 12).  
John W. Green, M. D., Vallejo (District 7).  
Carlos G. Hilliard, M. D., Redlands (District 18).  
Greg Hoskins, M. D., Long Beach (District 8).  
Carl R. Howson, M. D., Los Angeles (District 2).  
George D. Huff, M. D., San Diego (District 14).  
Louis E. Jones, M. D., Roseville (District 15).  
T. Henshaw Kelly, M. D., San Francisco (District 1).  
Lyell C. Kinney, M. D., San Diego (District 14).  
Alson R. Kilgore, M. D., San Francisco (District 1).  
Tully C. Knoles, Ph. D., Stockton (District 13).  
Mr. Daniel Koshland, San Francisco (District 1).  
Mr. John Lawler, Petaluma (District 7).  
M. B. McCarthy, M. D., Carmel (District 20).  
S. J. McClendon, M. D., San Diego (District 14).  
W. B. McKnight, M. D., Portola (District 21).  
George S. Martin, M. D., Susanville (District 21).  
Mrs. A. C. Mattei, San Francisco (District 1).  
W. Earl Mitchell, M. D., Berkeley (District 3).  
Carl Moore, M. D., Bakersfield (District 16).  
William H. Moore, M. D., Bakersfield (District 16).  
Glenn Myers, M. D., Los Angeles (District 2).  
Rt. Rev. Thomas J. O'Dwyer, Los Angeles (District 2).  
Wendall G. Olson, M. D., Fullerton (District 10).  
Alfred L. Phillips, M. D., Santa Cruz (District 5).  
Dewey R. Powell, M. D., Stockton (District 13).  
Dexter N. Richards, M. D., Oakland (District 3).  
J. G. Roberts, M. D., Pomona (District 6).  
Henry Rogers, M. D., Petaluma (District 7).  
John C. Ruddock, M. D., Los Angeles (District 2).  
Frederick N. Scatena, M. D., Sacramento (District 15).  
Dwight C. Sigworth, M. D., Long Beach (District 8).  
Ernest Sloman, D. D. S., San Francisco (District 1).  
J. J. Smith, M. D., Beverly Hills (District 4).  
Wayne K. Templeton, M. D., Riverside (District 18).  
Donald E. Thompson, M. D., Red Bluff (District 19).  
B. L. Trelstad, M. D., Redding (District 19).  
Ray Lyman Wilbur, M. D., Stanford University (District 5).  
J. S. Woolford, M. D., Eureka (District 9).  
John H. Woolsey, M. D., Woodland (District 17).

#### FEE SCHEDULE

The following is the professional service fee schedule currently in effect:

#### CALIFORNIA PHYSICIANS' SERVICE Fee Schedule—Approved June 15, 1939

<i>Procedure</i>	<i>Units</i>
Abdominal paracentesis, first.....	2
Abdominal paracentesis, repeated.....	2



<i>Procedure</i>	<i>Units</i>	<i>Procedure</i>	<i>Units</i>
Abortion or miscarriage (if hospitalized and curetted).....	20	Ethmoidectomy .....	20
Abscess, anal (office or hospital).....	4 to 8	Fissure in ano, dilatation or incision.....	6 to 10
Abscess, incision .....	1 to 8	Fistula in ano.....	30*
Abscess, ischiorectal .....	4 to 8	Fluoroscope, of chest, heart, lungs with written report ..	2
Abscess, peritonsillar .....	4 to 8	Foreign body conjunctiva.....	1½
Abscess, retropharyngeal .....	4 to 8	Foreign body cornea, including subsequent office visits ..	4*
Allergy tests, in smaller numbers on basis of ordinary office visits .....	1	Foreign body removal except eye, ear and nose, depending on location and character (to be fixed by consultation with Medical Director).....	--
Allergy tests, scarification or intradermal for fifteen to twenty tests.....	2	Fractures, (4 weeks' care) carpal, metacarpal-tarsal and metatarsal .....	10 and up
Amputations, finger or toe.....	6	Fractures, (4 weeks' care) clavicle .....	20
Amputations, two or more, each.....	2	Fractures, (4 weeks' care) scapula, simple .....	20
Amputations, foot, ankle or leg.....	30	Fractures, (4 weeks' care) scapula, complicated .....	30
Amputations, hand, wrist, forearm or arm.....	30	Fractures, (4 weeks' care) femur .....	80
Amputations, knee or thigh.....	40	Fractures, (4 weeks' care) forearm, one or two bones ..	40*
Anesthesia, outside hospital (including time to and from patient) per hour.....	4	Fractures, (4 weeks' care) leg, one or both bones.....	40*
Anesthesia, hospital, 10 per cent of surgery fee or per hour .....	4	Fractures, (4 weeks' care) humerus .....	40*
Anesthesia, hospital, less than half hour.....	2	Fractures, (4 weeks' care) nose .....	8*
Anesthesia, whenever gas furnished by anesthetist..... (Consult Medical Director)	--	Fractures, (4 weeks' care) mandible .....	30 to 60
Anesthesia, special types .....	--	Fractures, (4 weeks' care) maxilla .....	8 to 20
(Consult Medical Director)	--	Fractures, (4 weeks' care) patella or olecranon .....	40*
Antrum lavage .....	2	Fractures, (4 weeks' care) pelvis .....	50*
Appendectomy .....	50*	Fractures, (4 weeks' care) phalanx .....	4 per 1st plus 2 per additional
Appendectomy, ruptured (consult Medical Director)....	60*	Fractures, (4 weeks' care) spine—no neurological injury .....	50
Arthrodesis, shoulder, elbow, sacro-iliac (hip or knee) ..	80	Fractures, (4 weeks' care) dislocations of neck.....	50
Arthrodesis, wrist, ankle or foot.....	40	Fractures, (4 weeks' care) Pott's .....	30*
Arthroplasty, shoulder, elbow, hip or knee.....	80	Fractures, (4 weeks' care) ribs (more if severe).....	6*
Arthrotomy, large .....	30	For any additional allowances for complications or special methods of treatment, consult Medical Director.	--
Arthrotomy, small .....	20	Gall-bladder, removal .....	80*
Aspirations, tuberculous or other abscess.....	2	Gastric resection .....	80*
Assist at operation, major.....	6	Gastroenterostomy .....	80*
Bartholin's gland cyst, excision.....	10*	Hemorrhoids, clamp and cautery or excision and suture method .....	20*
Bartholin's gland cyst, incision and drainage.....	2	Hemorrhoids, injection method, per treatment.....	2
Basal metabolism rate determination.....	2	Hernia, single inguinal .....	40*
Biopsy, cutaneous .....	2	Hernia, double inguinal .....	50*
Biopsy, interpretation .....	2	Hernia, femoral single .....	40*
Bladder, cystoscopic examination with catheterization of ureters .....	10	Hernia, femoral double .....	50*
Bladder, cystoscopic examination .....	4	Hernia, umbilical .....	40*
Bladder, neoplasm through cystotomy.....	40	Hordeolum .....	2*
Bladder, tumor—fulguration .....	20	Hydrocele, operation .....	20*
Bladder, tumor (extra for difficulty) (consult Medical Director) .....	--	Hysterectomy and radical operation on pelvis for cancer .....	80
Blood transfusion .....	10	Hysterectomy simple, nonmalignant.....	60
Body jacket .....	10	Intestinal resection .....	80*
Breast, removal of portion.....	10	Intramuscular medication (medication furnished by patient) same as office visit.....	1
Breast, amputation, simple .....	40*	Intravenous medication (medication furnished by patient) same as office visit.....	1
Breast, amputation, radical .....	80*	Keratoses—any method—minimum .....	2
Bronchoscopy, foreign body .....	40	Laminectomy .....	80*
Bronchoscopy, diagnostic .....	20	Laparotomy, exploratory for diagnosis or biopsy.....	40
Bronchoscopy, diagnostic repeat .....	10	Lid plastic (consult Medical Director).....	8 to 20
Burns, extensive, involving one hour's attendance, first visit .....	10	Mastoidectomy (consult Medical Director).....	40 to 60
Subsequent visits at regular visit rate.	--	Myomectomy, with laparotomy.....	60
Dressings at 4 units per hour.	--	Naso-antral opening .....	8
Caesarean section .....	60	Naso-antral opening (two).....	10
Cataract .....	60	Nephrectomy .....	80*
Catheterization of urethra or passing sound.....	2	Nephrotomy .....	60
Cervical polyp, in hospital with curettage.....	10*	Obstetrics, prenatal care—delivery—spontaneous or forceps—supervision of child in hospital—postpartum care of mother, including final examination..	34*
Cervix, amputation .....	30	Orchidectomy, simple .....	20*
Cervix, cauterization, electric .....	2	Orchidectomy, radical, for malignancy.....	60
Chalazion .....	4	Orthodiagram of heart with written report.....	2
Circumcision, child .....	4	Papilloma (skin) (consult Medical Director).....	2
Circumcision, adult .....	10	Paracentesis, membrana tympani.....	4*
Colostomy (depends on nature).....	50*	Perineorrhaphy (not including postpartum).....	40
Consultation in which case is returned to referring physician for treatment.....	4	Phimosis, with dorsal slit.....	4
Craniotomy for depressed fracture.....	80*	Phrenicotomy, etc. ....	20
Craniotomy with abscess drainage.....	80*	Physical examination, general with history—on authorization of Medical Director (laboratory work extra) .....	6
Craniotomy for subdural hematoma.....	80*	Physical examination—periodic "health" checkup, usual physical examination (urine examination allowed in addition). Beneficiary members are entitled to one such examination per year upon request. If any condition is discovered indicating need of further diagnostic procedures, case then comes under usual rules for sickness.....	2
Cartilage, semilunar, removal of detached.....	40*	Plastic surgery—reconstructive (consult Medical Director) .....	--
Curettage, diagnostic .....	10*	Pneumoperitoneum, first .....	6
Cystotomy, for drainage, preoperative.....	12	Pneumoperitoneum, second .....	3
Cystotomy, for stone removal, etc.....	20	Pneumothorax, first .....	6
Cysts—See tumors	--		
Dick test, including subsequent examination, office, two visits .....	2		
Dislocations, easy reductions without anesthetic or assistance .....	4		
Dislocations, major reductions, anesthetic required....	10		
Electrocardiogram, with interpretation and report.....	2		
Encephalogram, not including x-ray.....	10		
Enucleation, eye .....	40*		
Epididymectomy .....	20		
Epithelioma, removal any method, minimum.....	15*		

\* Indicates total.

Procedure	Units	Procedure	PELVIS	Units
Pneumothorax, others .....	3	Pelvis .....		5
Premarital examination (required by law). (Wassermann allowed in addition) .....	1		SPINE	
Proctoscopy .....	2	Cervical .....		6
Prostatectomy, perineal or suprapubic—c.c. ....	80*	Thoracic .....		5
Prostatic resection—transurethral—median bar .....	20*	Lumbar .....		5
Prostatic resection—radical .....	60*	Lumbosacral .....		6
Pterygium .....	15	Entire spine, complete studies .....		14
Rectum, radical resection or amputation for malignancy .....	80*		SKULL	
Refraction with mydriatic .....	4	Skull for sella turcica or bones of face .....		5
Rib resection for empyema .....	20	Skull, complete examination .....		8
Salpingectomy .....	60	Sinuses .....		5
Sequestrectomy (consult Medical Director) .....	..	Mastoids .....		5
Sphenoidotomy .....	24	Nasal bones .....		4
Sinus operation, radical, antral .....	40	Eye for foreign body .....		4
Spinal puncture, diagnostic, including pressure measurement .....	2	Eye, foreign body localization .....		8
Spinal puncture, therapeutic .....	4	Full denture .....		4
Spine, arthrodesis .....	80	Partial denture .....		2
Sprains, large joints .....	2	Tooth .....		1
Sprains, small joints .....	2		GASTRO-INTESTINAL TRACT	
Submucous resection .....	30*	Esophagus .....		6
Tear sac extirpation .....	30*	Gastro-intestinal series, complete, including barium enema and cholecystography .....		18
Tendon surgery, tenotomy (subcutaneous) (two or more add 50 per cent) .....	12	Gastro-intestinal series, with barium enema or cholecystography .....		14
Tendon surgery, lengthening .....	25	Gastro-intestinal series, without barium enema or cholecystography .....		10
Tendon surgery, transplants .....	25	Barium enema .....		6
Tendon surgery, suture (each tendon) .....	15	Barium enema and gastro-intestinal series .....		14
(Not to exceed 80 including care.)		Cholecystography (including dye) .....		6
Tendon surgery, repair of crucial or lateral ligaments .....	40	Abdomen (plain examination) .....		4
Tendon surgery, repair, chronic acromioclavicular dislocation .....	60	Gall-bladder (plain examination) .....		4
Tendon surgery, repair, recurrent dislocation of shoulder .....	60	Cholecystography and gastro-intestinal series .....		14
Tendon surgery, repair, recurrent dislocation of patella .....	40		CHEST	
Thoracocentesis, diagnostic .....	2	Chest for heart .....		4
Thoracocentesis, therapeutic .....	4	Lungs and heart, including fluoroscopy .....		6
Thoracoscopy—cutting pleural adhesions (consult Medical Director) .....	..	Fluoroscopic examination .....		2
Tonsillectomy, including adenoidectomy .....	20		URINARY TRACT	
Tumors and cysts, benign and superficial, excision (minimum) .....	10*	Kidneys or plain KUB .....		5
Tumors and cysts, incision and cauterization .....	2	Abdomen (for pregnancy) .....		5
Ureteral stone through cystoscope .....	20*	Pyelogram (retrograde) .....		6
Ureterotomy .....	50*	Pyelogram (intravenous, including dye and administration) .....		10
Urethroscopy .....	2	Bladder or cystogram .....		4
Vaginal plastic, including cystocele and rectocele .....	60*		SPECIAL EXAMINATIONS	
Varicocele operation .....	20*	Encephalography .....		10
Varicose veins—injection .....	1½	Bronchography (including opaque oil and injection) .....		8
Venupuncture, diagnostic .....	No charge	Pelvimetry .....		8
Ventriculogram, not including x-ray .....	10	Salpingography .....		8
Visit, home up to 10 p. m. ....	1½	Consultation on examinations made at outside offices .....		4
Visit, home after 10 p. m. ....	3	Checkup examinations of fractures (within 24 hours) .....		At one-half original charge
Visit, hospital .....	1½	Portable examinations at patient's home (additional fee) .....		6
Visit, repeat office, or simple procedures in office .....	1	Fluoroscopic examination in conjunction with procedures such as myelography, requiring unusual time .....		4
Visit, first office, or home, with routine history and examination .....	2	Additional procedures (such as stereoscopic oblique projections of lumbar articulations) in conjunction with routine examination, additional .....		33%
Wounds, small, repair .....	1½			
Wounds, large, repair (according to time required) .....				
Mileage, per mile one way, from 3 miles beyond city limits .....	½			

\* \* \*

## Fee Schedule for Private Laboratories

Surgical pathological diagnosis .....	4 to 10
Surgical pathological consultation .....	..
(Consult Medical Director)	
Post mortem examination .....	4 to 10
Special post mortem examination .....	..
(Consult Medical Director)	
Basal metabolic rate .....	2
Dark field for treponema pallida .....	2
Friedman test .....	3

## BLOOD

Complete blood count .....	1½
White and differential .....	¾
Red blood count and hemoglobin .....	¾
Smear for parasites .....	¾
Coagulation time .....	¾
Bleeding time .....	¾
Prothrombin time (consult Medical Director) .....	2
Blood group tests, single item as below .....	1
(1 unit for each of first two tests. Subsequent tests after the first two, done during consecutive period of observation or illness) .....	1½
Blood chemistry, single item as below .....	1½
Sugar, nonprotein nitrogen, urea, creatinin, uric acid .....	

1. There are a great many procedures which are so variable in extent that no unit value has been placed upon them here. Whenever such procedures are performed, the units to be charged for them may be agreed upon by consultation with the Medical Director, pending the time that accumulated experience can include them in the formal schedule.

2. Whenever a beneficiary member is referred to a specialist by his physician and on the authority of the Medical Director, for treatment of a condition involving special problems, the specialist shall be entitled to a 20 per cent increase in the number of units to be charged for the service that he renders.

\* \* \*

Diagnostic X-Ray Fee Schedule—Roentgenologists  
(For Private Laboratories)

## EXTREMITIES

Finger, fingers, toe or toes .....	2
Hand, wrist or elbow .....	3
Foot, heel or ankle .....	3
Shoulder, scapula or clavicle .....	4
Knee, hip or femur .....	4

## BONY THORAX

Ribs or sternum .....	5
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\* Indicates total.



Procedure	Units
Special blood chemistry, single item as below (consult Medical Director) .....	2
CO <sub>2</sub> —combining power, calcium, sodium, cholesterol, phosphatase, phosphorus.	
Sulphanilamide and sulphapyridin.....	1
Glucose tolerance test: (One hour, two-dose test; or one- and two-hour method).....	3
Wassermann .....	1½
Kahn, Kline, or Hinton.....	1½
Other complement-fixation tests, except psittacosis....	2
(Consult Medical Director)	
Diagnostic agglutination tests, single item as below....	1½
Typhoid, paratyphoid, (except iso hemagglutination and heterophil antibody tests). (Consult Medical Director)	
Blood culture (of recognized diagnostic value).....	2 to 3
Special blood culture examination (consult Medical Director) .....	3 to 6
Van den Bergh .....	1
Icterus index .....	1
Other liver function tests (of recognized value).....	2 to 3
(Consult Medical Director) (Except cost of dye)	
Sedimentation time .....	1
Sedimentation rate (graph).....	2
Fragility of corpuscles.....	2
Reticulocyte or platelet counts (as single items to be added on to other charges for blood examination)....	½
Heterophile antibody (consult Medical Director).....	2

## URINES

Urinalysis, routine (microscopic and qualitative chemistry) .....	¾
Urinalysis, including quantitative chemical tests, add for each individual item.....	½
P.S.P. (phenolsulphonphthalein):	
(a) Bladder urine, two samples, excluding cost of dye .....	1
(b) Cystoscopic bladder and both ureters, excluding cost of dye.....	1½
(Consult Medical Director)	

## STOOLS

Microscopic examination and occult blood.....	2
Other special parasitological studies and series up to 6 .....	2 to 4
Occult blood .....	¾
Stool cultures .....	2 to 4

## STOMACH CONTENTS

Chemical and microscopic, one hour, one test.....	2
Fractional tests (consult Medical Director).....	4 to 6
Meal, alcohol and/or histamin.	

## SPUTUM

Smear for tubercle bacilli.....	1
Concentration method for tubercle bacilli.....	2
Smear for other simply identified organisms.....	1
Pneumococcus typing (consult Medical Director).....	..

## BACTERIOLOGY

Simple diagnostic cultures.....	2
Direct smears (gonorrhea, trichomonas, etc.).....	1
Special bacteriological cultures and procedures.....	4 and up
(Consult Medical Director)	
Guinea pig inoculations.....	3 to 5
Vaccines .....	2 to 20
(Consult Medical Director)	

## SPINAL FLUID

Diagnostic spinal fluid.....	2
Cell count, Wassermann, total protein.	
Extra chemical tests (see Blood).	

\* \* \*

## X-Ray and Radium Therapy Schedule—Radiologists

## MINOR ROENTGEN OR RADIUM TREATMENTS

Per treatment visit.....	2 to 4
Examples:	
Skin conditions: Acne dermatitis, erysipelas, wart, etc. ....	2
Hemorrhagic conditions: Prolonged coagulation time, etc. ....	2
Infections and inflammations: Carbuncles, furuncles, paronychia, etc.....	2
Adenitis .....	2
Keratosis .....	2
Cancer, superficial (depending on size, location and technical difficulties) .....	4 to 40

## MAJOR ROENTGEN OR RADIUM TREATMENTS

Cancer of breast, prostate, testis, bladder, etc. (complete roentgen course).....	80
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Procedure	Units
Cancer of uterus (complete course of roentgen and radium treatment) .....	80
Cancer of uterus (complete course of roentgen treatment) .....	80
Above conditions, pre or postoperative roentgen course in conjunction with surgery (complete course).....	60
Preoperative irradiation (short intensive courses).....	20
Menorrhagia, fibromyoma uteri.....	40
Hyperthyroidism (complete course).....	40

NOTE: Minor or intermediate roentgen treatments may need repetition, especially minor ones, as much as five times. If more than six such minor treatments are considered necessary in any one case, special authorization shall be obtained.

By full courses of roentgen or radium irradiation is meant approximately three to six weeks of roentgen treatment, the treatments being given daily or close together, however large a number of fields is used.

## COUNTY SOCIETIES

## KERN COUNTY

The Kern County Medical Society held a regular meeting at the Mercy Hospital in Bakersfield on the evening of October 19. Dr. Chester Mead presided.

Dr. Leo Baisinger of Bakersfield was elected to membership.

Dr. L. A. Packard reported on plans for a dinner to be held with leading businessmen of Bakersfield and for a similar luncheon in Taft, so that the California Physicians' Service plan could be presented to them, enabling the field representative to make more efficient use of time in contacting the industries in Kern County.

Doctor Mead requested that members send out literature opposing Proposition No. 2 (the chiropractic initiative) before the special election on November 7. He also asked for discussion on a Postgraduate Conference to be held in Bakersfield this winter, if possible, to which other societies would be invited. Members were in favor of doing so.

Dr. Lloyd Fox was appointed chairman of the Committee on Arrangements for the annual dinner dance.

Dr. Robert Langley of Los Angeles was then introduced and showed a sound film of normal and abnormal heart sounds coordinated with movements of heart valves. This unusual film was much enjoyed, and Doctor Langley was asked many questions regarding the technique used in making the film.

C. S. COMPTON, *Secretary*.

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## LASSEN-PLUMAS-MODOC COUNTY

A special meeting of the Lassen-Plumas-Modoc County Medical Association was held at the Mt. Lassen Hotel in Susanville on Saturday evening, October 21.

Dr. A. R. Kilgore, Secretary of the California Physicians' Service, was the speaker of the evening. He gave a very interesting talk on the whys and wherefores of the California Physicians' Service. After the talk a round-table discussion was held.

Following this the election of officers was held. Dr. W. B. McKnight of Portola was elected president, and Dr. Bernard Holm of Quincy was elected secretary.

The following members were present: Doctors P. W. McKenney of Alturas, C. I. Burnett, G. S. Martin, Gordon Fortson, and Willis Crever, all of Susanville; Dr. F. J. Davis, Sr., and Dr. F. J. Davis, Jr., both of Westwood; Dr. W. B. McKnight of Portola; and Dr. E. F. Gianotti of Walkermine.

FRED J. DAVIS, *Secretary*.

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## MENDOCINO-LAKE COUNTY

The meeting of the Mendocino-Lake County Medical Society was called to order by Vice-President Royal Scudder on September 23 at the Redwood Coast Hospital

in Fort Bragg, when the following members were present: Doctors Bowman, Lloyd, Wolfe, Scudder, Wagner, Babcock, Cleland, Van Allen, and Huntley. Doctors Howe and Habstad were guests.

The application of Dr. J. E. Gardner of Ukiah was accepted, and notice of Dr. William J. Perry's transfer to the Butte County Society was given.

The resignation of Dr. R. A. Cushman from the Society was presented by letter. Doctor Cushman has been in practice for fifty-seven years, and in recent years was medical superintendent of Mendocino State Hospital. He has given freely of his time and energy for the welfare of the Society; has been our delegate for years, and prominent in the activities of the State Association. It was with regret, therefore, that his resignation was accepted, and a resolution was unanimously adopted recommending to the Council of the California Medical Association that Doctor Cushman be elected to retired membership.

The Society dues for 1940 were raised from \$1 to \$2 by a unanimous vote.

Dr. John H. Lloyd presented cases showing injuries to the shoulder. He discussed the injuries and correlated the cases with the discussion of these injuries made at the last meeting by Dr. J. B. Josephson.

Dr. H. H. Wolfe spoke of x-rays in a case of advanced *Spondylolisthesis*, and a short informal discussion followed. The meeting having adjourned, refreshments were served by the Fort Bragg members.

DALLAS L. WAGNER, *Secretary*.



#### RIVERSIDE COUNTY

The Riverside County Medical Association was invited to participate on October 3 with the San Bernardino County Medical Association for a dinner meeting in honor of our representatives in the State Legislature, and to hear a discussion by Dr. Junius B. Harris of Sacramento on how laws are made. Our legislative representatives, Senator John Phillips and Assemblyman Nelson Dilworth, had given a great deal of thought to the medical bills before the State Legislature, and this was an opportunity to show our appreciation of them.



The regular meeting of the Riverside County Medical Association was held at the Riverside Community Hospital on October 9, at 8 p. m.

The paper of the evening, *Obstructions in Urology*, with x-ray demonstrations, was presented by W. E. Gardner.

The Secretary advised the members of the death of Dr. J. M. Colburn, who had been an active member since 1908 and who retained, in a measure, an active practice until a few weeks before his death.

THOMAS A. CARD, *Secretary*.



#### SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held on October 5 in the Medico-Dental club-rooms, Stockton, preceded by the customary supper at the Hotel Wolf, when twenty-five members and guests were present. The supper entertainment was presented by Leon Happell, who conducted his weekly health broadcast from the supper room, a five-minute talk on various health questions, prepared by the American Medical Association. This is Mr. Happell's third year of broadcasting. Dr. Henry Rixford presented a case of generalized herpes and discussed its treatment with thiamin. This case produced considerable discussion from the floor, both as to the failure and the uselessness of thiamin in the treatment of herpes.

The regular meeting was called to order by President Neill P. Johnson at 8:20 p. m. The application of Dr.

W. L. Frazier of Sheepranch for membership in the San Joaquin County Medical Society, having been acted upon favorably by the Admissions Committee, and there being no objections from the floor he was declared a member.



#### IN MEMORIAM

The following resolution was read by the Secretary, who moved that it be spread upon the minutes of the meeting and a copy sent to Doctor Powell. This was seconded by Doctor Wever and unanimously passed:

"With feelings of deepest regret, the San Joaquin County Medical Society must record the passing of one of the most esteemed and faithful members of the Woman's Auxiliary of the San Joaquin County Medical Society, our beloved and respected Mrs. Dewey R. Powell, who died on September 13.

"Because we realize to the fullest extent the benefits which our Society and the entire community have derived from the work of this public-spirited woman, and because of the warm, personal respect inspired in our hearts by a devoted wife and mother, matron of an ideal American home, into which she blended a splendid intellectuality, and for which she consumed the last atom of her physical being; be it

"*Resolved*, That we inscribe upon our records this tribute of her memory that future generations may know and appreciate her splendid Christian character, her many benevolent deeds, and the respect and esteem in which she was held; and

"*Resolved*, That a copy of these resolutions be transmitted to the family of our deceased associate, together with the assurance of our sincerest sympathy."



Earl Casey, district representative of the California Physicians' Service, then gave a short talk on the *Aims and Purposes of This Service*. He was followed by Ross Marshall, Counsel of the Public Relations Department of the California Medical Association, who gave a short talk on the *Functions of This New Branch of the California Medical Association*.

The main paper of the evening was given by Dr. Paul A. Gliebe, Assistant Professor of Psychiatry at the University of California, who spoke on *Psychiatry and the General Practitioner*. Doctor Gliebe's paper proved very interesting and was enjoyed by the large audience in attendance at the meeting. There being no further business to come before the Society, the meeting was declared adjourned at 10:10 p. m., when refreshments were served.

G. H. ROHRBACHER, *Secretary*.



#### SAN MATEO COUNTY

The Board of Directors of the San Mateo County Medical Society met on Wednesday, September 27. The meeting was held in the library of Mills Memorial Hospital on September 27, followed by adjournment to the dining room.

Present were: Doctors N. D. Morrison, Harper Peddicord, H. H. Whitney, Carl Benninghoven, Robert Monteith, Frank Gregory, and J. Garwood Bridgman.

Dr. S. J. Guardino was present at the invitation of the Board. He was asked to have his application signed by two members of the Society and return it to the Secretary's office with a check for dues for the balance of the year. The Board directed the Secretary to obtain information from the San Francisco County Medical Society in connection with Doctor Guardino's previous membership in that society.

The Secretary read a letter which he had received from Ross Marshall, Public Relations Counsel of the Committee on Public Health Education of the California Medical Association. No action was taken.



A letter was read from Dr. George H. Kress, Secretary of the California Medical Association, concerning the advisability of not voting an applicant into county society membership unless a check for dues is attached to the application. A motion was made, seconded and carried, that this be the policy of the Society in the future.

The Board then heard the report of the committee designated to study the United States Public Health Service Survey, which report was submitted by Doctor Benninghoven, a member of the committee. Considerable discussion ensued, and upon motion made by Doctor Whitney, seconded by Doctor Monteith, the report of the Committee was approved and the Committee directed to submit the report at the Society meeting. A copy of the report is attached to the minutes.

J. GARWOOD BRIDGMAN, *Secretary*.



#### VENTURA COUNTY

The regular monthly meeting of the Ventura County Medical Society was held at Satcoy on September 12, when twenty-two members and five guests were present.

Senator James J. McBride was introduced by Doctor Mosher, and talked on the last legislative session, stressing especially the legislation which affected the medical profession.

The following communications were read: From the State Medical Library, announcing that the Los Angeles branch had been closed and that it is now necessary to order medical journals, etc., from the Medical Center Library, Medical Center, San Francisco; from Mr. Ross Marshall, Public Relations Counsel of the Committee on Public Health Education, in regard to the creation of a speakers' bureau by the county; from S. K. Cochems, Los Angeles County Medical Association, in regard to WPA cases; from Dr. G. H. Kress, regarding the Wagner Health bill; from the California Physicians' Service, in regard to election of directors to that body; and a résumé of the report of a special committee on a basic science initiative act.

The applications of Grace F. Thomas and Emil F. Tonn were submitted for the first time.

Dr. G. C. Coffey was unanimously nominated as candidate to the Board of Directors of the California Physicians' Service.

It was the consensus of opinion of the members present that some kind of a basic science law should be presented either at the next legislative session or at the next election. Senator McBride discussed this matter with us.

Doctor Homer spoke on the publicity campaign of the Cancer Commission, which is to be held next spring, and moved that the President appoint a committee to handle this publicity. Dr. S. Clark seconded the motion, and it was unanimously carried.

Discussion of free examinations for the Parent-Teacher Association spring round-up resulted in no definite decision. Doctor Nielsen made a motion that this question be left to the discretion of the Secretary. Doctor Homer seconded the motion, and it was unanimously carried.

A brief résumé of the present status of the California Physicians' Service was given by the Secretary. He also reviewed the Wagner bill, after which the meeting adjourned.

A. A. MORRISON, *Secretary*.

#### CHANGES IN MEMBERSHIP

##### New Members (48)

##### *Alameda County*

Silas J. Brimhall	Kenneth C. McLeod
Milton W. Franklin	W. William Nicolson
Fritz Hope	

##### *Los Angeles County*

Charles Grant Abbott	Gilbert Lee
Theodore I. Bernstein	Paul Levan
Ian Stuart Cherry	Simson Marcus
Alford V. Fraser	G. Herbert Miller
Arnold Jerome Gordon	William J. Mitchell
M. H. Haig	Robert Lynn Moore
George Sidney Harris	Almon B. Ross
Frederic W. Ilfeld	Robert Cushman Welden
John B. James	Emmet L. Wemple
Raphael J. Koff	

##### *Merced County*

Eulys Willson Bray	Benjamin Woro
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##### *Monterey County*

Dwight M. Bissell	Serapion B. Ledesma
Arthur E. Geschke	

##### *San Diego County*

James A. Bass	C. W. Hartsough
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##### *San Francisco County*

George F. Adams	Stacy R. Mettler
Daniel J. Cronin	Gertrude M. Mitchell
Martin Debenham	Harold O. Parkinson
Sanford E. Feldman	G. Robert Riga
Max Honigbaum	Lee Shahinian
Albert E. Larsen	Roger G. Simpson
James J. Leary, Jr.	Bret White Smart
Neil Patrick McCloy	

##### *San Joaquin County*

W. L. Frazier

##### *Santa Cruz County*

Allen Jesse Pederson

##### Transfers (3)

Philip K. Gilman, Jr., from San Francisco County to Santa Cruz County.

Harry P. Howard, from Sonoma County to Monterey County.

LaFayette P. Monson, from Alameda County to San Francisco County.

## In Memoriam

**Bennett, Earl Leslie.** Died at Long Beach, October 12, 1939, age 54. Graduate of Jefferson Medical College of Philadelphia, 1914. Licensed in California in 1917. Doctor Bennett was a retired member of the Fresno County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.



**Browning, Charles C.** Died at San Marino, September 27, 1939, age 78. Graduate of the University of Missouri School of Medicine, Columbia, 1883. Licensed in California in 1891. Doctor Browning was a retired member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.



**Gallwey, John.** Died at Hillsborough, October 16, age 76. Graduate of University of California Medical School, San Francisco, 1885, and licensed in California the same year. Doctor Gallwey was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

**Kilgore, Allen Malone.** Died at Hollywood, September 25, 1939, age 47. Graduate of Rush Medical College, University of Chicago, 1919. Licensed in California in 1926. Doctor Kilgore was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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**Nottage, Herbert Piercy.** Died at Ontario, September 15, 1939, age 76. Graduate of Harvard University Medical School, Boston, 1886. Licensed in California in 1907. Doctor Nottage was a member of the San Bernardino County Medical Society, the California Medical Association, and the American Medical Association.

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## OBITUARIES

### John Gallwey 1863-1939

Death came on October 16 to Dr. John Gallwey, one of San Francisco's most beloved family physicians, who was known for more than half a century to poor and rich alike as "Dr. John."

Stricken suddenly, Doctor Gallwey died at 10:15 a. m. at his Hillsborough home from coronary thrombosis.

His wife, Catherine, and two sisters, Mary and Katherine Gallwey, the only survivors, were present when the doctor passed away.

Doctor Gallwey's death brought to an end a career notable for service to his fellow men in many forms. In addition to his large charitable medical practice, he was at various times, until his retirement several years ago, a member of the University of California Board of Regents, a member of the City Park Commission, and active in many other civic affairs.

The story is told of him that his offices at Hyde and Bush streets were often so crowded with the poor seeking medical care that his paying patients could not get in.

Family physician for many of the old San Francisco families whose fortunes stem from the Mother Lode bonanza days, Doctor Gallwey was forced to come to San Francisco on Tuesdays following his retirement because the patients would have no one else care for them.

A heart specialist and leading diagnostician, Doctor Gallwey, who was seventy-six at his death, tried time and time again to confine his activities to these fields, but San Franciscans would not have it. They knew him best as a family physician and wanted him to continue in that capacity.

He was typical of the old family practitioners who carried the worries and anxieties of their patients on their shoulders, as well as ministering to their physical ills.

A graduate of the University of California in the class of 1883, Doctor Gallwey was a member of the Family, Bohemian, and Olympic clubs.

Many of his former patients, members of his profession, and civil leaders paid tribute to Doctor Gallwey.

Among these were Mayor Angelo Rossi, who appointed the physician to the Park Commission, on which he served from 1932 to 1938.

"The death of Dr. John Gallwey," said Mayor Rossi, "is an irreparable loss to the city and state, and a shock to me.

"He was my lifelong friend, and his death is a personal loss to me. His kindness, his thought for others, his great character, made him beloved by all."

President Robert Gordon Sproul of the University of California paid this tribute to Doctor Gallwey.

"The death of Dr. John Gallwey is a distinct loss to the State of California."

A member of Doctor Gallwey's profession, Dr. J. C. Geiger, City Health Director, said this:

"I feel that the medical profession has lost one of its most distinguished members. He was a classical example of the family doctor and dean of the medical profession on the Pacific Coast. In addition to that, he was one of the best loved characters I have ever known.\*

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From an obituary tribute in the *Bulletin of the San Francisco County Medical Society*, contributed by Dr. John H. Graves, the following excerpts are taken:

Dr. John Gallwey filled many public positions of trust and confidence, and was possessed of a personality that was founded in deep religious faith and intelligent and sincere sympathy for all humanity, combined with a delicious sense of humor and an amazingly retentive memory.

In the flush days of the Comstock, through the gay nineties, the terrible holocaust of fire and earthquake of 1906, and subsequent rebuilding of the destroyed city, no man contributed more to the well-being of the community than did he. All of his activities, both as a citizen and in his professional career, were marked by humility and a tolerance that was in keeping with his religion, which was never on display, but which governed and directed every thought and act of his life.

After the great fire and earthquake of 1906, a prominent San Franciscan remarked that we still had three things possessed by no other city in the world, and he designated them as Lotta's Fountain, Twin Peaks, and Dr. John Gallwey, and said that with these to begin with, restoration of the city was certain.

A detailed list of his services as a citizen and of honors conferred on him would add unnecessarily to this testimonial to his character. Suffice it to say that he was one of the founders of St. Francis Hospital and a president of the hospital board for nearly a quarter of a century. He had honorary degrees from several universities and had recently resigned from the Board of Regents of the University of California.

It would be a violation of his unalterable policy to mention any of the endless charities that he bestowed so freely throughout his life. His whole life served as a searchlight to illuminate the path of all those who have an earnest desire for service as real physicians; a life so enriched by his personal catholicity that his God must have destroyed the mold and left us only his memory to reverence.

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### Charles C. Browning 1861-1939

Dr. Charles C. Browning passed away on September 28 as the result of an attack of lobar pneumonia. He had not been active since a cerebral accident in October, 1932.

Doctor Browning was graduated from the University of Missouri in 1883. Following this, he practiced in Denver, Illinois, for five years, and then took a position with the City Asylum for the Insane in New York City. In 1891 he came to California in search of health, locating first in San Jacinto and later in Highland.

While at the latter location he became interested in the black widow spider, and made extensive studies of its habits. He supplied the Smithsonian Institution with its first specimens, and published the results of his observations in the *Southern California Practitioner* of August, 1901. He also took an active part in community matters, and, following an epidemic of typhoid fever, was instrumental in the development of a supply of pure drinking water for the district.

\* Reprinted from the San Francisco *Call-Bulletin*, October 16, 1939.



In 1905 he became medical director of the Pottenger Sanatorium at Monrovia, leaving there in 1910 to enter private practice in Los Angeles, where his work was limited to tuberculosis.

During the following twenty-two years he was a leader not only in his special field of medicine, but in all medical activities. He was one of the small group responsible for the adoption and development of the present system of County Tuberculosis Sanatoria, under the supervision of the California State Board of Health, which is accountable for the high standard of care given patients in public institutions in California. He served several terms as president of the California Tuberculosis Association. He also served as director of the National Tuberculosis Association for many years, and was one of a limited number upon whom honorary membership was conferred.

During the first World War he was one of the few men over the age limit admitted to the service. He was chief of the Medical Service at Fort MacArthur in 1918-1919.

He was president of the Los Angeles County Medical Association in 1917, and of the Los Angeles Clinical and Pathological Society in 1930, and was the first president of the Trudeau Society of Los Angeles. He was a member of the American Clinical and Climatological Society and numerous other medical, scientific, and civic organizations.

As professor of tuberculosis in the College of Medical Evangelists from 1918 until his retirement, and chief of the attending staff at the Tuberculosis Service at the County Hospital from 1910, his influence as a teacher has been far-reaching.

His students, his fellow members in the profession, and his patients, all felt the imprint of his kindly spirit and sympathetic understanding, and he was esteemed by all who knew him.

## THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. FREDERICK N. SCATENA.....President  
MRS. WILLIAM C. BOECK.....Chairman on Publicity  
MRS. KARL O. VON HAGEN.....Asst. Chairman on Publicity

### BOARD OF DIRECTORS OF THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION

#### Minutes

San Francisco, California,  
September 15, 1939.

The Board of Directors of the Woman's Auxiliary to the California Medical Association met at 10:30 a. m. in the Woman's City Club, San Francisco, September 15, 1939. The president, Mrs. Frederick N. Scatena, presided. Following greetings from Mrs. Scatena, the Secretary read the roll call.

The following county presidents were in attendance: Mrs. Kaho Daily, Contra Costa; Mrs. Philip Wise, Santa Clara; Mrs. Raymond V. Rukke, Monterey; Mrs. C. A. DeLancey, Marin; Mrs. Hans Hartman, Stanislaus; Mrs. C. E. Fitzgibbon, Merced.

The President declared a quorum present.

Minutes.—The Secretary read the minutes of the last post-convention board meeting, which were approved as corrected.

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Karl O. Von Hagen, Assistant Chairman on Publicity, 5867 Whitworth Drive, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Von Hagen and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

Reports of Officers.—The recording secretary, Mrs. G. Wendell Olson, reported that all necessary correspondence as set forth by the Resolutions Committee at the 1939 convention had been taken care of. Also all minutes of the Board, Executive, pre- and post-convention, and convention meetings have been filed.

The corresponding secretary, Mrs. George Spencer, reported that she had written fifty letters, compiled a list of county presidents, officers, and committee chairmen, to State officers. The California Medical Association consented to append to its roster the names of the Auxiliary members. To date only thirteen responses sent in as to list of membership. Requests early replies.

The treasurer, Mrs. C. G. Stadfield, reported the following balances: Checking account, \$523.52; savings account, \$1,552.53. An itemized account of the Del Monte Convention was read, and showed a balance of \$105.36. Mrs. Fred Zumwalt refunded \$3.92 from the *Courier* account.

Respectfully submitted,

MRS. C. G. STADFIELD, *Treasurer.*

A motion was made by Mrs. Henderson, seconded by Mrs. Lindemulder, that this report be accepted and placed on file. Motion carried.

Mrs. Hall made a motion, and Mrs. Hund seconded, that we ratify the change of banks, as the treasurer, Mrs. C. G. Stadfield, resides in the south. Motion carried.

At 11:15 the meeting was set aside to hear Mr. Ben Read on "Legislative Problems." The President introduced the speaker. Mr. Read pointed out that 306 bills, containing some reference to public health, are to come up before the Legislature. He urged Auxiliary members to help fight the chiropractic initiative, Proposition No. 2, on the November 7 ballot, and also the "Ham and Eggs" issue.

#### Reports of Chairmen of Standing Committees

Membership and Organization.—Mrs. Harry O. Hund sent letters to all county presidents, enclosing a questionnaire, and all but three responded. The State of California had the greatest decrease, due to the sending in too late to the National Treasurer of membership dues. A map of California showed organized counties and their membership, data derived from the questionnaire. Sonoma County is a newly organized Auxiliary. Mrs. Hund's committee is comprised of Mrs. Sargent and Mrs. Wright.

Program and Health Education.—Mrs. Frank Baxter reported that counties are coöperating with program standards from the National. Auxiliaries in the state have subjects concerning health councils and departments, local improvements, modern and recent programs, etc., and she is anxious to assist all program chairmen if assistance is needed.

Public Health Activities.—Mrs. Eugene Kilgore was unable to organize programs at this early date. She will have something definite at the next Board meeting.

Editor and Publicity.—Mrs. William C. Boeck gave an outline of the *Courier*, October 5 being the deadline for news from the Auxiliary since it goes to press on October 15. Mrs. Boeck urges each county to send in their interesting news and history of their organization. The *Courier* will be published in two issues. Mrs. Von Hagen, 5867 Whitworth Drive, Los Angeles, will take the publicity work for CALIFORNIA AND WESTERN MEDICINE, and all news should be in before the 10th of the month.

Hygeia.—Mrs. H. E. Henderson sent letters to county chairmen of *Hygeia* and county presidents. To increase subscriptions, she suggests that each member of the county auxiliary get one subscriber to *Hygeia*. The National contest begins October to January 31. Prizes are divided into four groups, according to membership—membership of 1 to 13; 14 to 23; 24-42; and 43 and up. Two State prizes will be given in proportion to subscriptions.

Convention.—Mrs. F. G. Lindemulder presented tentative plans of entertainment for the convention at Coronado,

the Auxiliary to hold its meeting in the Crown Room at the Hotel del Coronado, which seats 200 to 250 persons. Mrs. Lindemulder's committee consists of Mrs. Harry Huffman and Mrs. R. H. Schnider.

Recess.—A motion was made, and seconded, to recess for luncheon. The members of the San Francisco County Auxiliary were hosts to Board members and county presidents at a delightful luncheon, when Mrs. Scatena introduced a guest, Mrs. John J. Ryan, St. Paul, Minnesota, who is National historian. In response, Mrs. Ryan gave greetings from the National, and urged the Auxiliary to send in a history of their organization to the National for the news letter.

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San Francisco, California,  
Friday, September 15, 1939.

The second meeting of the Board of Directors of the Woman's Auxiliary to the California Medical Association was held at 2 p. m. in the Woman's City Club, San Francisco, September 15. The president, Mrs. Frederick N. Scatena, presided. The meeting was called to order with the same attendance, with the exception of Mrs. N. T. Enloe, President of Butte County, who came late.

Reports of District Councilors.—Favorable reports on the work being accomplished in their respective districts: Mrs. Harry Huffman, First District; Mrs. J. R. Walker, Fourth District; Miss Julia Koenecke, Fifth District; Mrs. Eugene Kilgore, Sixth District; Mrs. Charles C. Hall, Seventh District.

A motion was made by Mrs. Henderson, and seconded, that the Board send a letter of cheer to Mrs. Horace H. McCoy, Second District Councilor, who is recovering from an accident. Motion carried.

Unfinished Business.—The Secretary read a letter from the Morning Milk Company, regarding a contest. This plan was rejected.

The Secretary read a deferred resolution presented by the Sacramento Auxiliary at the last convention, which is as follows: "That widows of members in good standing in the State Medical Association be permitted to affiliate with any county auxiliary where they reside in California." A motion was made by Mrs. Hobart Rogers, and seconded, that the Board reply to Sacramento County Auxiliary regarding this resolution, to the effect that this matter has been provided for in the Constitution. Also, that Alameda County invite the member who was refused admittance into Alameda County Auxiliary, and offer an apology for their negligence in not knowing that the applicant was entitled to membership, and cordially invite her to join with their group. Motion carried.

The proposed amendment to Section 1 of Article 9 of the Constitution was read by the Secretary. After discussion a motion was made by Mrs. Lindemulder, and seconded by Mrs. Huffman, that this amendment be retained until the February Board meeting for further action. Motion carried.

New Business.—The president, Mrs. Scatena, presented an outline of her year's work, which is as follows:

1. The organization of a Woman's Auxiliary in each county having a medical society.
2. Every Auxiliary member become a clubwoman.
  - (a) Become a member of the Board.
  - (b) Attend the meetings regularly.
  - (c) Place speakers on health subjects on as many programs as possible.
3. Every Auxiliary member inform herself on the subject of state medicine so that she can discuss it intelligently and give the medical viewpoint.
4. The Woman's Auxiliary assist the Medical Society in its program of public health education.
  - (a) By requesting radio stations to carry American Medical Association program.

(b) By developing interest in social hygiene education, cancer, tuberculosis, syphilis, etc.; also, increase interest in *Hygeia*.

(c) By assisting in medical legislation when requested by the Chairman of Legislation of the California Medical Association.

A motion was made by Mrs. Henderson, and seconded, that we adopt this outline of Mrs. Scatena's. The motion carried.

A letter of resignation received from Mrs. H. R. Oliver, Chairman of Public Relations, was read. A motion was made by Mrs. Walker, and seconded, that Mrs. Oliver's resignation be accepted with regrets. Motion carried. Mrs. Eugene Kilgore nominated Mrs. Humber of San Francisco to fill this vacancy. Mrs. Humber was unanimously elected.

The Constitution of Stanislaus County was presented. A motion was made by Mrs. Henderson that the Board accept this Constitution with the proviso that it be corrected if necessary. Motion carried.

A letter received from Doctor Kress was read by the Secretary, and was sent to Mr. Nelson, Secretary of the Ohio State Medical Association, regarding organizing an auxiliary in Ohio. All information concerning the activities of the Auxiliary was sent with a roster of various committees, etc.

Mrs. Baxter made a motion, Mrs. Lindemulder seconded, that we accept Mrs. Huffman as first district councilor upon resignation of Mrs. Lindemulder, who is councilor-at-large. Motion carried.

Announcements.—The President announced her itinerary in visiting the county auxiliaries.

In the absence of Mrs. Eric E. Larson, President of the Los Angeles County Auxiliary, Mrs. C. G. Stadfield conveyed the invitation for our Board meeting to be held in Los Angeles the latter part of February.

There being no further business, the meeting adjourned. Respectfully submitted,

MRS. G. WENDELL OLSON, *Recording Secretary*.

## Component County Auxiliaries

### *Alameda County*

More than a hundred members of the Woman's Auxiliary to the Alameda County Medical Association attended the opening luncheon meeting of the season, which was held at the Claremont Country Club on Friday, September 15. Mrs. George Calvin, President, presided. Mrs. A. A. Alexander, hostess of the day, was assisted by Mrs. Abbott Crum and her reception committee.

Dr. Frank R. Makinson, Chairman of the Alameda County Chapter of the Public Health League of California and past president of the Alameda County Medical Association, gave an interesting and instructive talk on *Medical Legislation*.

Mrs. Theodore Lawson, a member of the Auxiliary, entertained with piano solos.

In outlining her program for the coming year, Mrs. Calvin explained that, in addition to the usual health educational program and philanthropic work, there is much to be done in connection with new measures of legislation which affect medical practice. She pointed out that all members should cooperate in this work. All were urged, therefore, to promote friendliness within the group.

MRS. RENE VAN DE CARR, *Publicity Chairman*.



### *Butte County*

After a lapse of four months, due to general inertia of summer, the first fall meeting of the Woman's Auxiliary to the Butte County Medical Society was held on Thursday



evening, September 28. The meeting was preceded by a dinner which proved very pleasant, as it was the doctors' meeting night, too.

The business meeting was held at the home of Mrs. Enloe, who reported much business enthusiastically. She gave the slogan, "If we are to inform others, we must first inform ourselves." The Auxiliary has much active work planned, such as the folding of the Tuberculosis Seals, the cancer lecture of Doctors Kilgore and Stone for November, the major project of dressing reconditioned dolls, and the visit of Mrs. Scatena, State President of our Auxiliary.

MRS. J. O. CHIAPELLA.



#### *Los Angeles County*

The regular meeting of the Woman's Auxiliary to the Los Angeles County Medical Association was held on Tuesday, September 26, at the County Medical Association Building at 1925 Wilshire Boulevard. Luncheon was served at 12:30 p. m. in the lounge.

The guest of honor was Mr. Vierling Kersey, Superintendent of Los Angeles City Schools, who spoke on *Education Leading to Better Citizenship*.

Dr. George D. Maner discussed pending legislation of interest to the medical profession. Other guests included Dr. Vincent Askey, Dr. C. W. Pierce of the Board of Education, and Mrs. Roland Brown of the Parent-Teacher Association.

Mrs. E. Eric Larson, incoming president of the Auxiliary, presided, assisted by her Executive Board: Mesdames Ralph B. Eusden, John Martin Askey, Jay B. Cosgrove, Franklin Farman, Paul D. Foster, William H. Daniel, Clyde E. Harner, Hyman Miller, Frederick A. Speik, Karl P. Stadlinger, and William Benbow Thompson.

MRS. BENBOW THOMPSON, *Chairman of Publicity*.



#### *Marin County*

The September meeting of the Woman's Auxiliary to the Marin County Medical Society took place on Thursday evening, September 28, at Deer Park Villa in Fairfax. It was a dinner meeting and twenty-six members were present. Mrs. De Lancey presided. We were honored to have as our guests, Mrs. Frederick N. Scatena, State President, and Mrs. Spencer, State Secretary.

At the meeting which followed dinner, the program for the year was discussed. Mrs. Homer Marston was appointed treasurer to succeed Mrs. Elmer Smith, who had resigned.

Mrs. Scatena gave a brief résumé of the National Convention at St. Louis. She urged members to take an interest in legislation pertaining to the medical profession. She also stressed the importance of Auxiliary members belonging to other organizations to serve as Board members whenever possible in order to have a voice in the selection of a speaker who is in accord with the Medical Association.

Mrs. Scatena related the history of the Auxiliary, from its inception in Texas in 1917. She announced that California now has twenty-five auxiliaries.

After a delightful and stimulating evening, the meeting adjourned.

MRS. JOHN C. W. TAYLOR.



#### *Monterey County*

On September 20 a musical tea was given by the Woman's Auxiliary to the Monterey County Medical Society at the Salinas home of the Fifth District counselor, Miss Julia Koenecke, honoring Mrs. Frederick N. Scatena, State President, and Mrs. George A. Spencer, State Corresponding Secretary, both of whom came from Sacramento.

Mrs. John P. Sandholdt and Mrs. Martin McAulay of Monterey, and Mrs. Garth Parker and Mrs. D. D. Meyenberg of Salinas presided at the tea table.

The musical numbers were solos by Mrs. J. P. Jarvis of Salinas, who was accompanied at the piano by Mrs. W. P. Schweitzer.



In the evening of October 5, a meeting and dinner was enjoyed by the Auxiliary at the Santa Lucia Inn in Salinas. Mrs. Raymond V. Rukke, President, was presiding officer and introduced the speaker of the evening, Dr. Dwight Bissell.

Doctor Bissell spoke on Propositions 1 and 2.

The Auxiliary's guest for the evening was Mrs. Andrew B. Stockton of San Francisco.

MRS. WILLIAM F. COUGHLIN, *Publicity Chairman*.



#### *San Francisco County*

The first fall meeting of the Woman's Auxiliary to the San Francisco County Medical Society was held on Tuesday, September 19, in the Gold Ballroom of the Medical Society Building. Mrs. Edmund Morrissey presided.

The opening address was given by Dr. Edwin Bruck, President of the San Francisco County Medical Society. Mr. H. A. Barbour, assistant to the administrator of the San Francisco Housing Authority, discussed substandard areas of San Francisco, and answered questions.

Invited as honored guests were the auxiliaries of the following institutions: Children's Hospital, Franklin Hospital, French Hospital, Mary's Help Hospital, Mount Zion Hospital, St. Francis Hospital, St. Luke's Hospital, St. Mary's Hospital, St. Joseph's Hospital, San Francisco Hospital, Shriners' Hospital, Southern Pacific Hospital, Stanford University Hospital, and the University of California Hospital.

Tea was served following the meeting, when Mrs. Rea Ashley and Mrs. Fred Fellows, Board members, headed a committee of thirty hostesses of the Auxiliary. Through the kindness and efforts of Mrs. B. A. Cody, beautiful floral arrangements added to the occasion.



At the Board meeting on Monday, October 2, legislative committees were appointed to work on the measures coming up on the November ballot.

MRS. WILBER F. SWETT, *Publicity Chairman*.



#### *Sacramento County*

The Sacramento Auxiliary opened the year with a luncheon meeting on Tuesday, September 19. Mrs. Norris Jones presided. Mrs. Frederick N. Scatena, State President, and Mrs. George Spencer, Corresponding Secretary, were the guests of the day, together with Dr. and Mrs. Manuel Azevedo and Mrs. Andrew Henderson, past State president.

Doctor Azevedo brought a message of greeting from the county society, of which this year he is president.

Mrs. Scatena gave a report of her visit to the National Convention at St. Louis, and outlined her plans for the coming year.

MRS. PAUL H. GUTTMAN, *Publicity Chairman*.



#### *Santa Cruz County*

The terrace of the Rio Del Mar Country Club proved a cool and scenic locale for the first fall meeting of the Santa Cruz county branch of the California State Medical Auxiliary on Wednesday, September 20.

President Mrs. F. P. Shenk presided. Guests of honor were Mrs. F. N. Scatena, State President, and her secretary, Mrs. Spencer. Mrs. Scatena reported on the National Convention and on the work being done in the California auxiliaries.

The program for the year was outlined by Mrs. N. R. Sullivan. Mrs. R. C. ALSBERGE, *Publicity Chairman*.



### San Diego County

The first meeting for the year of the Woman's Auxiliary to the San Diego County Medical Society was a social affair held on September 14, at the Hotel del Coronado Beach and Tennis Club. The president, Mrs. William Cooke, presided.

An unexpected rainstorm made swimming uninviting; but many of the forty-two members present enjoyed playing bridge. IVA O'HARA, *Secretary*.

## NEVADA STATE MEDICAL ASSOCIATION

C. W. WEST, Reno.....President  
H. A. PARADIS, Sparks.....President-Elect  
HORACE J. BROWN, Box 698, Reno.....Secretary-Treasurer

The thirty-sixth annual meeting of the Nevada State Medical Association was held at Lawton Springs, Reno, on September 22 and 23. The meeting was called to order by the president, W. H. Frolich, at 10 a. m.

After a brief address of welcome by President Frolich, the scientific program was presented, which was as follows:

Dr. Laurence R. Taussig of San Francisco read a paper on "Cutaneous Epitheliomas," which was discussed by Drs. Lawrence Parsons, Moreton Thorpe, and Leland Cowan.

Dr. Fletcher B. Taylor of Oakland read a paper on "Medical Follies of 1938," which was discussed by Drs. Eugene Kilgore, George Magee, and Ontie Hovenden.

Dr. Edward B. Shaw of San Francisco read a paper on "Principles of Treatment of the Common Contagious Diseases," which was discussed by Drs. Lemuel Brigman, Edward Hamer, George Bates, and H. E. Belnap.

This concluded the morning session of the meeting, when recess was taken for lunch, at which the members of the Association and guests were joined by members of the Auxiliary, and Reno business and professional men and women. After lunch an address was given by Paul F. Cadman, President of the American Research Foundation of San Francisco, on the subject of *The Greatest Issue of Our Time*. His address was well received by all present, and was greatly appreciated.

The afternoon session commenced at 2:30 o'clock, with a continuance of the scientific program.

Dr. Roger Anderson of Seattle, Washington, read a paper on "Treatment of Fractures in the Region of the Hip—One-Man Technique," which was discussed by Drs. Richard Schofield, A. J. Hood, A. M. Okelberry, H. Williams, and Fred Anderson.

Dr. R. B. Raney of Los Angeles read a paper on "Space-Occupying Lesions About the Spinal Canal and Their Relation to Sciatic Pain," which was discussed by Dr. Paul Flotow.

Doctor Raney's paper concluded the scientific program for the day, and a short recess was taken before commencing the business meeting.

### BUSINESS MEETING

This meeting was called to order at 4:55 p. m. by President W. H. Frolich.

Reading of the Minutes of the Last Annual Meeting.—A motion was made, seconded, and carried that the reading of the minutes be dispensed with.

Report of Delegate to the American Medical Association.—Horace J. Brown, Delegate, stated that since a report of the convention had been published in *The Journal of the American Medical Association*, and no doubt read by all, he felt that it was not necessary to make a report at this time.

Report of Various Committees.—Judicial Committee: H. W. Sawyer gave a report on the work of this committee during the past year, which was as follows:

The Nevada State legislative session of 1939 was one of the most important ever held, in so far as the Nevada State Medical Association was concerned. Your committee at this time offers you a résumé of the activities and accomplishments of the Judicial Committee on behalf of medical legislation introduced and passed or rejected at the 1939 session of the State Legislature.

In past years the Judicial Committee had only to keep in touch with the legislature to block the work of cults. At this session a new menace arose from within the ranks of the medical profession. That menace is an effort on the part of the representatives of the Federal Government to take over and direct the health program in this state.

The need for an active Judicial Committee was discerned when it became apparent that the State of Nevada had succumbed to the invasion of federal supervision of medicine. The previous governor, who was not noted for being a spendthrift, gave \$800 to have a bill drawn to control the practice of medicine in this state. I am speaking of the Tobey bill. The completed document was circulated among the members of this Association and was favorably received by some. According to this document, the state health officer was to be appointed by the Governor. This appointee was to be a physician having the degree of Doctor of Medicine and was to have had one year of training at a school of public health or five years' full-time experience as a public health official in lieu of training. He was to be appointed for a period of five years. This would have permitted the appointment by the Governor of none other than a man from the United States Public Health Service, federally trained and supervised. His minimum salary was to have been \$4,200 a year, with additional sums for traveling expenses.

The powers and duties of the state health officer were to have been as follows: "He shall be the executive officer of the State Board of Health and the State Registrar of Vital Statistics. He shall enforce all laws and regulations pertaining to the public health. He shall exercise general supervision over the work of all local health departments, boards of health, and health officers. He shall investigate causes of disease, epidemics, sources of mortality, nuisances affecting the public health, and all other matters related to the health and life of the people, and to this end may enter upon and inspect any public or private property in the state. He shall appoint and remove subordinate officers and employees of the State Board of Health, whose compensation shall be fixed by the State Board of Health. He shall direct the work of such subordinates and may authorize them to act in his place and stead." This power in the hands of the Federal Government would have been disastrous to the practice of medicine in this state.

The Tobey bill proposed that the Nevada State Board of Health act in an advisory capacity to the state health officer only and have no final word. This bill reads as follows: "The Board shall not have administrative or executive functions."

The Tobey bill was ready for introduction before the legislature. It was evident that the Medical Act of Nevada must be reorganized. The Judicial Committee drafted a bill which was redrafted six times before it satisfied those interested. The gist of Assembly Bill No. 159, as introduced by Mr. Kennet, is as follows:

The State Department of Health shall consist of five members. They shall be the Governor, two doctors of



medicine who have been in practice in the state for five years, one doctor of dental surgery who has practiced in the state for five years, and one additional member. The state health officer shall be the executive officer of the State Department of Health, but shall not be a member of the Board. The state health officer shall be appointed by the State Board of Health (rather than by the Governor). The State Board of Health shall be supreme in all health matters relating to the preservation of the health and life of the citizens of the State, and over the work of the state health officer.

The State Board of Health is designated as the agency of the state to coöperate with the federal authorities in the administration of the Federal Social Security Act relating to the maternal and child health services and treatment of crippled children, and is authorized to receive and expend all funds made available to the State Department of Health by the Federal Government.

There shall be five divisions of the State Department of Health, which are:

1. Division of Vital Statistics.
2. Division of Public Health Engineering.
3. Division of Laboratories.
4. Division of Maternal and Child Health and Crippled Children.
5. Division of Venereal Disease Control.

You will note that this bill provides that the State Board of Health shall be supreme in all matters pertaining to the health of the people of Nevada, as against acting only in an advisory capacity; that the State Board of Health shall consist of five members, two of whom shall be physicians, while a third is a dentist; that the Governor is a member; that the state health officer is appointed by the State Board of Health, with the approval of the Governor.

Excerpts from a letter written by a regional consultant in the United States Public Health Service show clearly his attitude toward the Nevada State Medical Association:

"I sincerely hope that some legislation will be passed which will make of the State Department of Health a more active and modern organization than can possibly be unless a reorganization is brought about.

"I have been advised that the medical society of the State of Nevada is unitedly opposing such a reorganization. I cannot help but believe that this opposition is based on an extremely narrow viewpoint on the part of the medical society toward public health work. If that public health work should be carried out in the interests of all the people of a state, I am unable to understand why a professional group, the membership of which is so very small as compared to the total population, should be authorized or permitted to direct or dictate the policies of a program which so materially affects the well-being of all the people of the state."

In our present law we have erected a barrier against the invasion of the Federal Government for the control of medicine in this state. At the present time the Federal Government is paying a large percentage of the costs of the work done by the various divisions of the State Board of Health.

The people now expect and demand free service. I tell you, who are present, that the medical men of Nevada can accomplish the same work with much less expense than can the Federal Government. However, it is only a question of a few short years at best until the Federal Government will assume control of the practice of medicine in this state.

Now, ladies and gentlemen, the first fight was won in the last session of the legislature, but do not think for one moment that it is the last fight we shall have to make.

You are all familiar with the work being done by the Federal Government in the matter of health in this state. What material good and improvement in the health of the people can be seen from the thousands upon thousands of dollars being spent?

Here is something for consideration. Your representative in Congress can help keep socialized medicine out of your state. Before the next regular session of Congress convenes, write your Congressman, asking for his active support in suppressing this menace. Much can be done by each of us in educating the public in regard to the dangers of socialized medicine.

It is suggested that you familiarize yourselves with the provisions of the Wagner Bill, Senate Bill No. 1620, which will be considered at the next regular session of Congress in 1940. Make it a point to contact your representative, that he may coöperate with us in defeating this unsound legislation.

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An expression of appreciation for Doctor Sawyer's report and work on the Judicial Committee during the past year was voiced by Dr. H. A. Paradis.

Committee on Military Affairs.—Dr. R. B. Roantree stated that no report was ready at this time.

Necrology Committee.—Dr. John J. Sullivan was asked for a report of the Necrology Committee, since he was the only member present. Doctor Sullivan had no report to make. A motion was made by Dr. A. R. DaCosta, and seconded by Dr. H. W. Sawyer, that the Necrology Committee be instructed to bring in resolutions for Dr. Donald Maclean and Dr. William A. Shaw, and so carried.

New Business.—Dr. Edward E. Hamer, State Health Officer, urgently requested the physicians of Nevada to express their comments and wishes in regard to the work of the Nevada State Department of Public Health, and to give their support in carrying out the work of the department. John A. Fuller stated that it was very essential that Doctor Hamer have a knowledge of what was expected of him. He stated that during the time he served on the State Board of Health he had felt handicapped because of lack of instructions and suggestions from the physicians.

Balloting on New Members.—Dr. Horace J. Brown stated that he did not have the list of new members in a proper form to present to the meeting, and asked for the confidence of the members in allowing him to act on the acceptance of new members. A motion was made by Dr. S. K. Morrison, seconded by Dr. O. Hovenden, and so carried, that Doctor Brown be allowed this privilege. New members are as follows: Drs. Harry E. Fightlin, Reno; J. F. Hill, Caliente; C. David Lambird, Sparks; Leslie A. Moren, Elko; F. W. Scott, Reno; Tyrrell R. Seager, Rio Tinto; and J. T. Eagleton, Fernley.

Balloting on Honorary Membership.—A motion was made by Dr. O. Hovenden, seconded by Dr. George Magee, and so carried, that all essayists at the meeting become honorary members of the Nevada State Medical Association.

Election of Officers.—Dr. H. A. Paradis was nominated for president-elect by Dr. A. R. DaCosta, and the nomination was seconded by Dr. John J. Sullivan. Dr. George Magee was nominated for first vice-president by Dr. R. P. Roantree, and the nomination was seconded by Dr. C. W. West. Dr. John R. McDaniel, Jr., was nominated for second vice-president by Dr. R. P. Roantree, and the nomination was seconded by Dr. O. Hovenden. Dr. Horace J. Brown was nominated for secretary-treasurer by Dr. O. Hovenden, and the nomination was seconded by Dr. S. K. Morrison. Dr. Earle L. Creveling was nominated to succeed himself as trustee by Dr. A. R. DaCosta, and the nomination was seconded by Dr. John J. Sullivan. All of the above were unanimously elected.

Selection of Place for Next Annual Meeting.—Dr. John R. McDaniel, Jr., invited the Association to hold the next meeting at Las Vegas. A motion was made by Dr. Robert R. Craig that this invitation be accepted, seconded by Dr. George Magee, and so carried.

There being no further business the meeting adjourned at 5:30 p. m.

A dinner dance was given for members of the Association and guests at Lawton Springs on Friday evening. Professional entertainment was provided between courses. Approximately 150 were in attendance.

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#### SATURDAY, SEPTEMBER 23

The meeting was called to order at 10:10 a. m. by the president, Dr. W. H. Frolich. The scientific program was immediately taken up and was as follows:

Dr. E. B. Muir of Salt Lake City, Utah, read a paper on "Treatment of Small Injuries of the Eye," which was discussed by Dr. John A. Fuller and Dr. Rulon Tillotson.

Dr. Robert C. Martin of San Francisco read a paper on "Ear, Nose, and Throat in General Practice," which was discussed by Drs. Earle L. Creveling, Rulon Tillotson, and John A. Fuller.

Dr. Ralph Richards of Salt Lake City, Utah, read a paper on "Oxygen Therapy," which was discussed by Drs. O. Hovenden, Fletcher Taylor, Eugene Kilgore, and A. M. Ogelberry.

Dr. Paul Flothow of Seattle, Washington, read a paper on "Treatment of Vascular Lesions of the Extremities," which was discussed by Dr. C. W. West and Dr. R. P. Roantree.

Dr. Eugene Kilgore of San Francisco read a paper on "Syphilis of the Central Circulatory System," which was discussed by Dr. Laurence Taussig.

Dr. C. W. West was introduced by Dr. W. H. Frolich and seated as president for the ensuing year.

There being no further business the meeting adjourned.

HORACE J. BROWN, *Secretary*.

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#### ADDENDA

The following members were in attendance at various times during the meeting: H. A. Paradis and C. D. Lambird, Sparks; John A. Fuller, S. K. Morrison, T. C. Harper, L. R. Brigman, George A. Cann, Lawrence Parsons, C. W. West, Frank W. Samuels, Vinton A. Muller, Horace J. Brown, J. LaRue Robinson, H. Earl Behnap, M. J. Thorpe, Leo Naninni, O. C. Moulton, A. J. Hood, C. E. Piersall, Vernon Cantlon, John J. Sullivan, Erwin J. Hund, H. E. Fightlin, A. R. DaCosta, T. H. Harper, A. E. Landers, J. P. Tuttle, Louis E. Lombardi, Rodney Wyman, Leo F. Corvino, G. R. Smith, Earle Creveling, all of Reno; J. R. McDaniel, Jr., Las Vegas; A. C. Olmsted, Wells; Fleet H. Harrison, Imlay; Robert R. Craig, Tonopah; G. D. Hutchinson, Pioche; D. A. Smith, Mina; O. Hovenden, McGill; W. H. Frolich, East Ely; Everett B. Muir, Salt Lake City; W. S. Sargent, Hawthorne; F. M. West, Lovelock; D. J. Hurley, Eureka; Edward E. Hamer, Carson City; Mary H. Fulstone, Smith; George Magee, Yerington; R. P. Roantree and Leslie A. Moren of Elko.

*Sensible Swimmers Realize Their Physical Limitations.*—The sensible swimmer realizes his own limitations in strength and physical fitness and is also aware of the dangers of infection which lurk in even the most modern swimming pool, Leon Felderman, M. D., Philadelphia, asserts in *Hygeia*, the health magazine.

"Every swimmer should have on hand a margin of safety, a reserve fund of physical energy," he advises. "The strongest swimmer may be caught in an undertow and fall a victim to the treacherous tide, unless he can be rescued. Miscalculation and trusting to chance are hazardous. The

wise swimmer knows not only what he can do in water but, more important, what he cannot do."

The swimmer who shows a tendency to allergy must be especially careful. The breast stroke is the safest method for him, as it has the advantage of keeping the head out of water and thus minimizes the danger of infection to the sinuses.

Too constant use of the crawl stroke subjects the ears to pressure which sooner or later injures them, and the hearing may become permanently affected, Doctor Felderman warns. Swallowing or clearing the nasal passages under water endangers the middle ear canals. "Do not rely entirely on wearing ear plugs or stuffing the ear canal with cotton," he advises. "It gives one a false sense of security, particularly false to those who suffer from chronically discharging ears."

Doctor Felderman declares that the most rigid supervision of pools does not eliminate the possibility of contracting a skin, eye, ear, nose, or throat infection. He says that the argument that swimming pools are antiseptized is a poor one in the light of known facts. Bacteriologically, it has been proved that the chief water inhabitant of the swimming pool is the *Bacillus coli*. There are also occasional streptococci or meningococci germs which are potentially responsible for sinus and brain infections. Besides these, there are free floating microscopic organisms known as plankton, which contain impurities varying with the location of the body of water and its state of purification.

"The number of bacteria per cubic centimeter in the water should not be over 250, and the colon bacilli should be entirely absent," the author says. "Today, the pools are provided with skimming gutters to remove the surface dirt and equipped with entrances and exits to maintain a continuous circulation of water, providing the patrons with facilities under sanitary conditions which reduce infectious diseases to a negligible factor."

"The consensus of authorities seems to be that there is a potential danger of person to person transmission of pathogenic bacteria added to the pool by swimmers and that this danger may be greatly minimized or eliminated by an efficient disinfecting agent. This remains to be checked by accurate statistics."

*Angina Pectoris as Cause of Death.*—Angina pectoris cannot be given as a cause of death, George Dock, M. D., Pasadena, California, declares in *The Journal of the American Medical Association*.

Pointing out that angina pectoris refers only to symptoms and not to a definite disease entity, Doctor Dock contends that whenever the term is used "it must be with the conviction that the name refers only to symptoms and demands a prompt and thorough differential diagnosis to exclude all other causes of pain, or to assign them their significance. Its adoption also necessitates an exact and persistent search for evidences of coronary disease and a prompt and intensive plan of treatment to meet all possibilities."

"There is a wish for a better name than angina pectoris, but until we have more exact knowledge of the minute processes I see no reason for change," the author affirms.

The term "angina" means a disease or symptoms characterized by spasmodic suffocating attacks, and the word "pectoris" refers to the chest. The author points out that "angina" was used as early as the sixteenth century to designate cases of quinsy or sore throat in which a feeling of strangling and anxiety entered. "Chest pain" was, therefore, an apt name for the group of symptoms that arrested the attention of William Heberden, who first used the term "angina pectoris."



## MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

## NEWS

### Coming Meetings.

*American Medical Association*, New York, June 10-14, 1940. Olin West, M. D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

*California Medical Association*, Hotel del Coronado, Coronado, May 6-9, 1940. George H. Kress, M. D., Secretary, 450 Sutter Street, San Francisco.

*Association of Western Hospitals*, Hotel Biltmore, Los Angeles, April 8-11, 1940. Thomas F. Clark, Executive Secretary, 1182 Market Street, San Francisco.

### Medical Broadcasts.\*

**American Medical Association Broadcasts: "Medicine in the News."**—The American Medical Association and the National Broadcasting Company have announced "Medicine in the News," on timely topics from medical news of the week. Thursdays, 4:30 p. m., Eastern standard time (1:30 p. m. Pacific standard time), Blue Network—Coast to coast; thirty weeks, opening on November 2, 1939; facts, drama, entertainment, music.

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### *Los Angeles County Medical Association.*

The radio broadcast program for the Los Angeles County Medical Association for the month of November is as follows:

Wednesday, November 1—KECA, 11:15 a. m., The Road of Health.

Saturday, November 4—KFI, 9:45 a. m., The Road of Health; KFAC, 10:30 a. m., Your Doctor and You.

Wednesday, November 8—KECA, 11:15 a. m., The Road of Health.

Saturday, November 11—KFI, 9:45 a. m., The Road of Health; KFAC, 10:30 a. m., Your Doctor and You.

Wednesday, November 15—KECA, 11:15 a. m., The Road of Health.

Saturday, November 18—KFI, 9:45 a. m., The Road of Health; KFAC, 10:30 a. m., Your Doctor and You.

Wednesday, November 22—KECA, 11:15 a. m., The Road of Health.

Saturday, November 25—KFI, 9:45 a. m., The Road of Health; KFAC, 10:30 a. m., Your Doctor and You.

Wednesday, November 29—KECA, 11:15 a. m., The Road of Health.

**Exhibit of the California Medical Association Cancer Commission at the Golden Gate International Exposition.\*\***—Prior to this year the Cancer Commission of the California Medical Association confined its activities to the medical profession of California, and left a definite program of public education to other organizations long in this work, notably the American Society for the Control of Cancer. During the session of the Golden Gate Exposition on Treasure Island, just closed,† however, there was a deviation from that policy, in that large numbers of people were

\* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

† From report by Otto H. Pflueger, M. D., Secretary of the Cancer Commission of the California Medical Association.

\*\* For item on Pathological Conference, see page 351.

made acquainted, through the activity of the Cancer Commission, with the simple facts concerning cancer.

This exhibit, made possible through money from the Herzstein Fund, and housed on the east aisle in the Science Building, was viewed by thousands of people, as can be attested by the writer, who always saw there, on his frequent visits, numerous groups intent on what was displayed before them.

The exhibit portrayed in a dignified, yet simple and easily understandable manner, the facts concerning cancer as we now know them. This was done by means of large charts, well illustrated with diagrams and photographs, each chart having a definite message in response to a question above it. This question and answer form was carried out by the answer on the chart, portrayed quite completely by word, diagrammatic and photographic illustrations.

Unfortunately, too much of the public knowledge of cancer consists of a store of misinformation, and to attempt to dispel this and point out those aspects of the disease which are encouraging was no easy task. Yet it was felt that the exhibit did just that for those thousands who had the opportunity of visiting it. Besides portraying what cancer is, and how it acts and what it is not, it went on to show just how the diagnosis of cancer is made, and not only that it is curable, but preventable as well; and it also showed the type of experimental work that is being done, with the part animals play in this problem, thereby being a bit of propaganda on the subject of vivisection.

It is to be hoped that all visitors to the Fair took in this exhibit to see for themselves what was being done by the Commission in the way of public education; for one cannot but feel that this sort of activity will always be instrumental in strengthening the bond between the public and the medical profession—a bond which has had considerable stress and strain in recent years. The more we can make people feel that the only interest of the medical profession is the public welfare, the better our own situation, as a result of renewed confidence, will become.

**Phi Rho Sigma.**—The Los Angeles Alumni Association of Phi Rho Sigma will meet on November 17, 1939, at the University Club in Los Angeles, in celebration of the annual Founders' Day banquet.

All members of Phi Rho Sigma are invited to attend. For reservations or information, address Harry F. Mershon, M. D., Alumni Secretary-Treasurer, 1407 South Hope Street, Los Angeles.

**Two State Hospitals Given New Chiefs.**—Examiner Bureau, Sacramento, Oct. 7.—Dr. Aaron J. Rosanoff, State Director of Institutions, today announced appointment of new medical superintendents at Napa and Mendocino State hospitals.

Dr. I. E. Charlesworth, Napa's assistant superintendent for seven years, will succeed the late Dr. J. M. Scanlan, while Dr. Walter Rapaport, Napa staff physician for five years, will head the Mendocino institution, succeeding Dr. R. A. Cushman, retired. Both jobs carry \$340 monthly salaries.—San Francisco *Examiner*, October 2.

**Correction.**—The article, "Training of Optometrists" (October issue of CALIFORNIA AND WESTERN MEDICINE, page 283), reprinted from *The Journal of the Connecticut State Medical Association*, was in error in stating that the Los Angeles School of Optometry gave the degree of Doctor of Optometry at the end of a three-year course. We are informed that in the Los Angeles School of Optometry "for many years past our course has been a four-year course, leading to a Bachelor of Science in Optometry."

**Southern California Medical Association: One Hundred and First Semi-Annual Session.**—The Southern California Medical Association held its one hundred and first semi-annual meeting on Friday and Saturday, November 3 and 4, 1939, at the Samarkand Hotel, Santa Barbara. An exceptionally fine program had been arranged.

The Association was fortunate in having secured two outstanding guest speakers. Dr. W. Edward Chamberlain, Professor of Roentgenology at Temple University School of Medicine, Philadelphia, addressed the Association and then participated in a symposium on intestinal obstruction. Dr. Frank J. Heck, noted hematologist at the Mayo Clinic, acted as moderator for a symposium on hematology.

**Los Angeles County Hospital Position Filled.**—LeRoy Bruce, for the last three years assistant executive superintendent of the General Hospital, yesterday was named assistant to the director of the institution by Rex Thomson, County Superintendent of Charities.

Bruce, aided by Thomson, will have administrative supervision of the hospital, pending the appointment of an executive director selected in the near future through a county civil service examination thrown open to applicants throughout the United States.

The position of executive director of the hospital recently became vacant when the Board of Supervisors removed Everett J. Gray, executive superintendent, by abolishing the position. The new executive director will be a medical man with administrative experience in hospitals.—*Los Angeles Times*, October 10.

**Pacific Association of Railway Surgeons.**—The thirty-seventh annual convention was held in San Francisco on September 29 and 30.

The program follows:

**FRIDAY, SEPTEMBER 29**

Address of Welcome—Mr. Leland W. Cutler, President, Golden Gate International Exposition.  
 Presidential Address: The Status of the Railway Surgeon—Richard J. Flamson, M. D., Los Angeles.  
 A Method of Treatment of Fractures of the Patella—L. D. Prince, M. D., San Francisco. (Illustrated.)  
 Fractures of the Transverse Processes of the Lumbar Vertebrae—Ralph M. Dodson, M. D., Portland. (Illustrated.)  
 The Neurologic Aspects of Low Back Pain and Sciatica—Howard A. Brown, M. D., San Francisco. (Illustrated.)  
 Testicular Substance Implantation—L. L. Stanley, M. D., San Quentin.  
 Spectrographic Analysis of Urinary Calculi: Preliminary Report—Charles P. Mathé, M. D., and Robley C. Archambeault, M. A. (Illustrated.)

**SATURDAY, SEPTEMBER 30**

Virus Infections—E. M. Butt, M. D., Los Angeles. (Illustrated.)  
 The Management of Coronary Disease in Engineers—E. S. Kilgore, M. D., San Francisco. Discussion by Philip King Brown, M. D., San Francisco.  
 Deafness—Grant Selfridge, M. D., and Roland F. Marks, M. D., San Francisco. (Illustrated.) (Presented by Doctor Marks.)  
 Tuberculosis in the Aged—C. A. Thomas, M. D., and S. C. Davis, M. D., Tucson. (Presented by Doctor Davis.)  
 The Diagnosis and Treatment of Peripheral Nerve Injuries—E. J. Morrissey, M. D., San Francisco.  
 Roentgenologic Demonstration—L. B. Crow, M. D., San Francisco.

Dr. William L. Weber, Chief Surgeon of the Pacific Electric Railroad, was elected president.

**Stanford Gets Fund for Needy Patients.**—Continuance of studies of San Joaquin Valley fever, and financial aid for needy maternity patients at the Stanford Medical School's Lane Hospital, San Francisco, have been made possible as the result of two recent gifts, President Ray Lyman Wilbur of Stanford University announced today.

The Rosenberg Foundation of San Francisco, which previously granted \$25,000 for a two-year study of San Joaquin Valley fever by Stanford staff members, has provided \$7,500 for additional studies.

The aid for needy maternity cases will be the income from a \$10,299 fund established by Mr. and Mrs. Herbert E. Clayburgh of San Francisco and a group of their friends. The fund is in memory of Mrs. Robert D. Steiner (Doris Clayburgh), who died on July 30. Mrs. Steiner was a member of the Stanford class of 1937.—*San Francisco News*, October 3.

**Lecturers to Give Mental Health Facts.**—A series of lectures on mental health, sponsored by the Northern California Mental Hygiene Society, will be given each Wednesday night, beginning on October 18 in the Mount Zion Auditorium, 2345 Sutter Street.

Dr. Walter L. Treadway, Medical Director of the United States Public Health Service, will open the series with a lecture on "The Poor, the Sick, the Bad," Dr. George S. Johnson, president of the society, announced yesterday.

Dr. Ernest R. Hilgard of Stanford will speak on "Motives in Industry," October 25; Dr. H. F. Chamberlain, psychiatrist, on "Mental Hygiene in Daily Life," November 1; Dr. J. Kasanin, Mount Zion Hospital, on "Psychoanalysis and Mental Health," November 8; and Dr. Norman Fenton, Stanford University, will speak on "Mental Hygiene and the Teacher," November 15.—*San Francisco Examiner*, October 2.

**Los Angeles Course in Ophthalmology and Otolaryngology.**—The Research Study Club of Los Angeles has made its preliminary announcement of the ninth annual Midwinter Course of Ophthalmology and Otolaryngology, to be held in Los Angeles on January 15 to 26, 1940. The teaching staff will include:

George L. Tobey, Jr., M. D., of Boston, Massachusetts.  
 William J. McNally, M. D., of Montreal, Quebec, Canada.  
 Albert D. Ruedemann, M. D., of Cleveland, Ohio.  
 Algernon B. Reese, M. D., of New York City.  
 Meyer Wiener, M. D., of St. Louis, Missouri.  
 Edward Jackson, M. D., of Denver, Colorado.  
 John F. Barnhill, M. D., of Indianapolis and Miami Beach, Florida.  
 Simon Jesberg, M. D., of Los Angeles.  
 Vern O. Knudsen, Ph. D., of Los Angeles.  
 Augustus G. Pohlman, M. D., of Los Angeles.  
 Louis K. Guggenheim, M. D., of Los Angeles.  
 Norman A. Watson, Ph. D., of Los Angeles.

Additional information may be secured by writing to the secretary of the course, Don S. Dryer, M. D., 2007 Wilshire Boulevard, Los Angeles.

**American Board of Ophthalmology.**—Written examination is announced for March 2, 1940, in various cities throughout the country. This will be the only written examination in 1940.

All applications for this examination must be received before January 1, 1940. All applicants must pass satisfactory written examination before being admitted to oral examination.

Oral examination: New York City, June 8 and 10. Fall examination to be announced later.

Case reports: Candidates planning to take the June examination must file case reports before March 1.

For application blanks write at once to Dr. John Green, 6830 Waterman Avenue, St. Louis, Missouri.



**Chiropractic Initiative: Proposition No. 2.**—On October 30, the Public Health League of California placed in the mails postcards giving the following information concerning broadcasts on Proposition No. 2:

Wednesday, November 1, 8:45 p.m.—Mutual Don Lee Broadcasting System: KHJ, Los Angeles; KFRC, San Francisco; KPMC, Bakersfield; KHSL, Chico; KXO, El Centro; KIEM, Eureka; KDON, Monterey; KVCV, Redding; KFXM, San Bernardino; KGB, San Diego; KQW, San Jose; KVEC, San Luis Obispo; KVOE, Santa Ana; KDB, Santa Barbara; KTKC, Visalia—Speaker, Dr. Dewey R. Powell, M. D., Councilor, Public Health League.

Sunday, November 5, 8:45 p.m.—Wendy Stewart, attorney and lecturer in Public Administration, U. S. C. Mutual Don Lee Broadcasting System, stations listed above.

Monday, November 6, 9:45 p.m.—Columbia Network: KNX, Los Angeles; KSFO, San Francisco; KROY, Sacramento; KARM, Fresno—Speaker, Dr. T. F. Ratledge, D. C., representing California Chiropractic Association.

**Broadcasts: Medicine in the News.\***—The seventh season of broadcasting by the American Medical Association over the facilities of the National Broadcasting Company and affiliated stations opens Thursday, November 2, at 4:30 p. m., eastern standard time (3:30 central standard time, 2:30 mountain time and 1:30 Pacific time). The title of the program will be *Medicine in the News*.

True to their title, the programs will consist of dramatizations based on what is happening in the world of medicine. Each program will include a principal news item from *The Journal* or some other reputable medical source or from *Hygeia*. This will be followed by one or more high lights on current medical news. Each program will close with a question of the week drawn from the question and answer correspondence of *Hygeia*. A question will be asked each week and answered the following week.

Since the program will be based on events as they proceed, it will be impossible to announce program topics in advance. Each program will be developed within the week immediately preceding its appearance and in part, perhaps, the programs will often be developed within forty-eight hours of their broadcasting.

As heretofore, this is a sustaining program made possible through the coöperation of the National Broadcasting Company. A sustaining program brings no revenue to any radio station or to the network. Therefore radio stations, except those owned and operated by the National Broadcasting Company, are not obligated to broadcast the program. State and county medical societies should express interest in the program by letter or personal interview with the manager of the local radio station. Such evidence of local interest may be the deciding factor in broadcasting the program locally.

Following is a list of the radio stations affiliated with the Blue network of the National Broadcasting Company. This is a list of stations to which the program is available, not a list of stations which are certain to broadcast the program. A list of stations announcing intention to broadcast the program will be published in a later issue of *The Journal of the American Medical Association*.

Pacific Coast Blue Network—KECA, Los Angeles; KEX, Portland, Ore.; KFSD, San Diego; KGO, San Francisco; KTMS, Santa Barbara; KJR, Seattle; KGA, Spokane. California Valley Group—KERN, Bakersfield; KMJ, Fresno; KFBK, Sacramento; KWG, Stockton.

**Stanford Gets New Medical Laboratories.**—In ultra-modern laboratories, housed in a specially designed building of concrete, steel and glass, medical research which has brought fame to the Stanford University Medical School was going forward yesterday.

Laboratory and research workers, for years compelled to labor in cramped, dark and ill-ventilated corners in the oldest building of the school at Sacramento and Webster streets, have transferred their important operations to roomy, well-lighted, odorless quarters with the best of equipment.

For that, Mrs. Louis Stern of Palo Alto is responsible. In the name of her daughter, Ruth Lucie Stern, she has given Stanford's scientists the finest of research laboratories.

#### Unrestricted Gift

Placing no restrictions upon the gift, except that it be used "for research in medicine," she instructed Birge Clark, architect, to incorporate in the structure "everything the men of science want."

As a result, Clark produced a building so designed that walls, free of obstructions, are solid bands of windows, so that each laboratory is an "outside room," with daylight available for eye-straining work, so that partitions are removable and laboratories adjustable for size and shape. A ventilating system has been built into the concrete core of the structure.

Heads of the school were jubilant over the new facilities yesterday. "Now, those who follow us, for fifty years or more, can do the work that is necessary," they said.

At present, they disclosed, work is going forward in the study of valley fever—a disease first recognized at Stanford. The fungus which causes the disease was first grown under laboratory conditions there—and its life cycle and possible specifics are now being studied there.

#### Work with Serum

In another laboratory, techniques are being devised for inoculation of children against whooping cough and against lockjaw.

In still another, scientists are dehydrating and freezing serum—preparing the valuable substance so that it might keep indefinitely.

What tremendously valuable discoveries may come out of Mrs. Stern's gift to the Stanford School no one would pretend to predict yesterday. One physician said of the research workers:

"They'll go along for twenty years, working hard, seeming to get nowhere. Then, suddenly, something happens—and the job is done. We are planning, here, for fifty years ahead."—*San Francisco Examiner*, October 10.

**Annual Symposium on Heart Disease.**—The Heart Committee of the San Francisco County Medical Society will hold its tenth annual Postgraduate Symposium on Heart Disease on November 16, 17, and 18, 1939.

Clinics on the various aspects of heart disease will be conducted at the University of California Hospital on Thursday afternoon, November 16. An additional feature will be the showing of a ten-reel film by Dr. Clayton J. Lundy, entitled "The Heart-Beat Mechanism in Health and Disease." Ward rounds and special clinics will be held at San Francisco Hospital on Saturday morning, November 18.

Other sessions are as follows:

*Thursday Morning, November 16, at the University of California Hospital.*

Francis L. Chamberlain, M. D., Presiding.

The Diagnosis of Pulmonary Heart Disease, by Maurice Sokolow, M. D.

Circulatory Disturbances Resulting from Peripheral Arterial and Venous Compression, by John J. Sampson, M. D. The Treatment of Hypertension with Sulphocyanates, by Stephen Reynolds, M. D.

The Diagnosis of Dissecting Aneurysm of the Aorta, by Eugene S. Kilgore, M. D.

Recent Advances in the Treatment of Heart Disease, by Francis L. Chamberlain, M. D.

A Demonstration Clinic on Angina Pectoris, by William J. Kerr, M. D.

The Effect of Climate on Rheumatic Heart Disease, by Ina M. Richter, M. D.

Subacute Bacterial Endocarditis Apparently Cured with Sulfanilamide, by Amos U. Christie, M. D., and Mary B. Olney, M. D.

The Heart in Diphtheria, by Gordon E. Hein, M. D.

Psychiatric Aspects of Heart Disease, by Paul Gliebe, M. D. Fluoroscopy in Diagnosis of Heart Disease, by Francis J. Rochex, M. D.

\* From the *Journal of the American Medical Association*, October 28, 1939, page 1647.

Buffet luncheon at 12:30 p. m. at the University of California Hospital, for all doctors registered for the symposium and for all symposium instructors.

On Thursday evening, November 16, the Heart Committee will celebrate its tenth anniversary with a dinner at the Western Women's Club. A special program has been arranged. Dr. William Dock will speak on "The Treatment of Heart Disease Since Queen Bess." A cordial invitation is extended to all doctors and their friends who may wish to attend. The dinner is \$1.65 per plate.

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On Friday, November 17, the sessions will be held at Stanford University Hospital.

#### Morning Session

Ann P. Purdy, M. D., Presiding.

Demonstration of Patients with Various Types of Cardiac Disorders, by Arthur L. Bloomfield, M. D., William W. Newman, M. D., and Ann P. Purdy, M. D.  
Clinico-Pathologic Demonstrations, conducted by William Dock, M. D.

#### Afternoon Session

J. K. Lewis, M. D., Presiding.

The Use of Physical Therapy in the Treatment of Peripheral Vascular Disease, by W. H. Northway, M. D.  
Use of the Epinephrin-Ephedrin Group of Drugs in Cardiovascular Disease, by M. L. Tainter, M. D.  
Heart Size and Heart Failure, by D. A. Rytand, M. D.  
The Electrocardiograph in the Differential Diagnosis of Acute Myocardial Infarction, Acute Cor Pulmonale and Acute Pericarditis, by Jackson Norwood, M. D.  
The Value of Phonocardiograms, by J. K. Lewis, M. D.

#### Evening Session at San Francisco Hospital

J. Marion Read, M. D., Presiding.

The Observation of Cardiac Motion by Roentgen-Kymography, by Leo H. Garland, M. D.  
Some Clinical Applications of Roentgen-Kymography, by J. Marion Read, M. D.  
Therapeutic Use of Digitalis, by Clayton D. Mote, M. D.  
Effort Syndrome—Diagnosis and Treatment, by Mayo H. Soley, M. D.  
Pregnancy and Heart Disease, by Charles A. Noble, Jr., M. D.  
Demonstration of Pulmonary Vascular Tree by Topography, by Alexander Petrilli, M. D.

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The registration fee for the symposium, including the anniversary dinner, is \$15. Registration applications and dinner reservations should be sent to Dr. Richard D. Friedlander, Chairman of Program Committee, San Francisco Heart Committee, 604 Mission Street, Room 802, San Francisco.

*Urges Victims Themselves to Fight Ragweed Menace.* Hay-fever victims could do much to rid themselves of their misery by concerted attempts at eradicating ragweed, Ramsay Spillman, M. D., New York, declares in *Hygeia*, the health magazine.

While persons susceptible to the pollen of ragweed cannot go near it during the blooming season, Doctor Spillman points out that there is a period comprising all of May, June and July and part of August, when the bloom has not formed, during which even sensitive persons can handle the plant, which is extremely easy to pull up.

"Concerted and organized action by the victims, themselves, would prevent much of their suffering later," he asserts. "But it is a sheer waste of money to cut down ragweed after it has formed viable seed."

Doctor Spillman says that, with the help of three neighbors, he cleaned off the ragweed from a lot comprising nearly a whole city block. The following year there was still a little left, as enough seed had carried over in the ground to give a yield of perhaps 10 per cent of the ordinary crop. The third year, however, there was only a scattered growth of ragweed.

## LETTERS

**Subject: Cancer Commission Pathological Conference.\***

CALIFORNIA MEDICAL ASSOCIATION  
CANCER COMMISSION  
SAN FRANCISCO

October 18, 1939.

*To the Editor:*—We would appreciate it if the enclosed announcement could be put in the next issue of CALIFORNIA AND WESTERN MEDICINE.

Very truly yours,

OTTO H. PFLUEGER, M. D.

• • •

(COPY)

#### CANCER COMMISSION PATHOLOGICAL CONFERENCE

Dear Doctor:

The next Microscopic Conference of the Cancer Commission of the California Medical Association will be held at the Alameda County Hospital in Oakland on Sunday, December 17, at 9:30 a. m.

In order that the committee in charge of the Conference—Doctors Paul Michael, Jesse Carr, and Alvin Cox—may go over the cases that are sent in, we are asking that if you have a case which you would like to present, that you send in two or three sample slides and a case history for the Committee's perusal as soon as possible.

If a case is accepted, the Committee will notify you and ask that you make up a set of sixty slides for distribution. The Committee is particularly anxious to obtain slides which are made of properly fixed material so that the slides will be satisfactory for diagnosis.

We are interested in getting the cases ready several weeks before the meeting, and would appreciate receiving sample slides and histories as early as possible. We feel that if slides can be sent to the pathologists throughout the state at least two weeks before the meeting, the cases can be diagnosed more satisfactorily and the discussion will be much more interesting. In the past, material has always been sent in so late that it has been difficult to get the slides out, and some of the participants have had to go without slides.

Will you kindly give this matter your prompt attention in order that we may make the program as interesting as possible? Kindly send your preliminary histories and slides to the chairman of the committee, Dr. Paul Michael, 434 Thirtieth Street, Oakland, California. He will get in touch with you concerning the cutting of sixty sections if your cases are accepted.

Bring your own microscope if you plan to attend. Also let the Chairman know if you will attend, as accommodations are limited.

**Subject: Premarital examinations.**

(COPY)

DEPARTMENT OF PUBLIC HEALTH  
CITY AND COUNTY OF SAN FRANCISCO

October 2, 1939.

#### Statement

Executive Order No. 188, involving Department of Public Health procedure, namely, volunteer Wassermann blood tests for syphilis in all Emergency Hospitals on each Wednesday of each week, is herewith rescinded, and the practice discontinued. The reasons are as follows:

Since these tests have been instituted, 10,541 have been performed, the statistical results being attached hereto. It

\* For item on California Medical Association Cancer Exhibit at Golden Gate Exposition, see page 348.



has been noted that the average number of weekly tests has fallen off to less than thirty per week. The main reason, however, for discontinuance of such blood tests in Emergency Hospitals is the new premarital examination state law. This state law requires a minimal physical examination and a blood test for syphilis. The many persons having only the results of the tests and not the physical examination and demanding, therefore, a marriage certificate of the County Clerk have so complicated the procedure under the new state law that it was thought best that the situation would be clarified accordingly by discontinuance of these volunteer blood tests.

Moreover, the deluge of California marriages into Nevada seems extraordinary and expensive if physical examinations and blood tests can be arranged with minimum complications.

The temporary elimination of this voluntary test is done with every regret, since the San Francisco Department of Public Health was the first in the United States to institute such a procedure for the control of syphilis in its Emergency Hospitals on a voluntary basis.

Under the premarital state law, go to your physician, or if you cannot afford the usual fee, go in San Francisco to established general hospital clinics.

J. C. GEIGER, M. D., *Director.*

✓ ✓ ✓

(COPY)

#### *Wassermann Campaign Results*

*August 18, 1937, to September 27, 1939, Inclusive*

Average number of tests taken weekly.....	95
Average percentage of tests showing positive results.....	7.7%
Average percentage of positives not previously tested nor recently treated.....	44%
Total number of tests taken to date.....	10,541

#### **Subject: Diagnosis of Weil's disease.\***

OFFICE OF DIRECTOR OF PUBLIC HEALTH  
CITY AND COUNTY OF SAN FRANCISCO

October 17, 1939.

*To the Editor:*—I am attaching hereto copy of an executive order in connection with the diagnosis of Leptospirosis (Weil's disease and Canicola fever).

Sincerely,

J. C. GEIGER, M. D., *Director.*

✓ ✓ ✓

(COPY)

CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF PUBLIC HEALTH

October 11, 1939.

#### *Executive Order No. 237*

*The Diagnosis of Leptospirosis  
(Weil's Disease and Canicola Fever)*

It is felt that the diagnosis of leptospirosis is of definite significance, particularly to epidemiologists, city physicians, surgeons in the Emergency Hospitals and others of the medical staff of the Department of Public Health. Therefore, those working in the fields noted should read this Executive Order and refer to it when occasion arises.

The following clinical symptoms are of significance in the diagnosis of icteric or anicteric leptospiral infections:

(a) Acute onset, fever, headache, feeling of severe illness; definite symptoms of an acute infectious disease.

(b) Muscular pains, occurring spontaneously and when pressure is applied, localized in the thighs, calves and back;

in about 80 per cent of the cases, characteristic redness of the conjunctivae.

(c) Liver symptoms: jaundice, bilirubinuria, urobilinuria; occasionally cholemia. Even in the absence of jaundice, van den Bergh indicates an increased bilirubin content of the serum, thus an increased destruction of red blood corpuscles and hepatic damage.

(d) Kidney symptoms: mild and severe nephritis, although observed in many infectious diseases, is always noted and transition stages to the symptoms of hemorrhagic nephritis are frequent in severe cases. The urea content of the blood without edema or hypertension is definitely increased.

(e) During the first week a low blood pressure with a weak and rapid pulse is worth noting.

(f) A marked deviation to the left of Arneith's formula, accompanied by a decrease of blood platelets, is apparent.

(g) Infections progressing as typical meningitis should be suspected as leptospirosis. It is important to realize that *all symptoms suggesting Weil's disease* may be absent. If the patient's medical history gives no suggestions, such as no water accidents, no swimming, no occupations bringing him into contact with rats or no exposure to dogs, a laboratory investigation (serum test or examination of the urine) by properly qualified workers is the only means revealing the true nature of the disease.

(h) Epidemiological information (swimming, fishing, working in sewers, etc.), may be of great importance. In recent years evidence has come to light that dogs are occasionally sources of infection. Canines infected with the classical rat or the specific dog leptospira may infect children and members of a household in which an animal with leptospiuria is kept.

Laboratory investigations are of greatest importance in order to differentiate the diverse forms of jaundice, in particular the sporadic cases of epidemic catarrhal jaundice. From a social point of view, an accurate diagnosis is imperative since the disease, when contracted as in the case of sewer workers, fishermen, butchers, is regarded as an occupational accident and, therefore, compensable by law.

\* \* \*

Prepared by Dr. K. F. Meyer, Director, Hooper Foundation for Medical Research, University of California.

J. C. GEIGER, M. D., *Director.*

#### **Subject: Service of Out-Patient Department: University of California Hospital.**

October 18, 1939.

*To the Editor:*—I am attaching a letter which we have received from a farmer in the country, which I think is a very significant document. It goes right to the heart of social medicine.

I thought you might like to see it, and Doctor Porter suggested that I forward it to you for your consideration. If you think it has any news value and you wish to use it in the JOURNAL, we would have no objections; if not, return it, and no harm done.

Sincerely yours,

OUT-PATIENT DEPARTMENT.  
W. E. Carter, M. D., *Director.*

✓ ✓ ✓

(COPY)

Vacaville, California, October 15, 1939.

U. C. Hospital  
San Francisco, California

Dear Sirs:

I am a small farmer. I have thirty acres with a nice home on it, and for eleven years I have had to work outside

\* See also article on page 294.

on other jobs to obtain enough money to pay taxes and interest and, incidentally, live and support my family. This year has been worse than all the previous ones, and I find myself "broke," taxes unpaid, and about \$100 in the bank. Prior to the last eleven years I was able to make a living on the place. Now I can't and I am ill. I am in a state of exhaustion and unable to work to speak of, all details of which I will omit as all I wish to find out is if there is any way whereby one can obtain a complete examination in the hospital at little cost, as I feel there must be something wrong with me or I would not feel as I do and, while not a pauper, I might as well be, as I have no money. I do not wish to impose on anyone, and I've always paid my way. At present I am desperate with worry, and local doctors that I have seen can find nothing wrong. I thought perhaps there was a clinic I could go to at some modest charge. I hate to bother you and hope you pardon my writing at length. I belong to the Intercoast Hospitalization, Inc., but they do not cover examination. I can hardly keep my dues up in that at present.

Most respectfully,

M. SHARPE.

✓ ✓ ✓

(COPY)

October 18, 1939.

Mr. M. Sharpe  
Vacaville, California

Dear Mr. Sharpe:

I have read your letter of October 15 with great interest. It may be that we can be of some help to you.

May I suggest that you call on some physician whom you regard as your family doctor and show him this letter and ask if he will be good enough to recommend you to us. We could then accept you, make a study, and report our findings to the doctor, who no doubt would be willing to carry on any treatment suggested.

We are enclosing a leaflet which will give you some idea of eligibility. There would of course be no physician's or surgeon's fee, if you came to the clinic. You would be expected, however, to meet our cost for such things as x-rays or clinical laboratory procedures. We ought to have two or three days to study your disorder. We can recommend rooms across the street, where you can stay for about \$1 a day, and there is a cafeteria on the campus.

If you come to San Francisco, please present this letter, as well as that from your doctor, to the information desk immediately on your arrival, which should be as nearly 8:30 in the morning as possible.

Yours very truly,

OUT-PATIENT DEPARTMENT.

W. E. Carter, M. D., *Director*.

**Subject: Premarital examinations.**

(COPY)

STATE OF CALIFORNIA

DEPARTMENT OF PUBLIC HEALTH

October 4, 1939.

*To the Editor:*—Enclosed is a copy of a letter mailed today to Doctor Dukes at his Oakland address.

Very truly yours,

W. M. DICKIE, M. D.,

*Director, California State Department of  
Public Health.*

(COPY)

DEPARTMENT OF PUBLIC HEALTH

San Francisco, October 3, 1939.

Charles A. Dukes, M. D.

President, California Medical Association

450 Sutter Street

San Francisco, California

My dear Doctor Dukes:

I believe you will be interested in knowing information we have concerning the administration of the law requiring premarital examinations and blood tests for syphilis.

There exists a great deal of public confusion concerning fees and there seems to be no uniformity among physicians as to what charges should be made. Fees are reported to range from \$1.50, when the blood is sent to the free laboratories of state and local health departments, to as high as \$16 a person.

Persons wishing to be married have stated to marriage license clerks and to newspaper reporters that they want to go to a private physician, but that they want to know definitely what charge will be made for the examination and blood test. This is further borne out by the experience in free clinics which, in most centers of the state, have been thrown open to the public by local health officers. Not all people who come to the clinics ask for a free premarital examination and test. Persons whose means are limited ask for the names of private physicians who will make a charge which they can afford to pay. In a few cases, clinics are able to supply such a list by using the names of physicians who have signified their willingness to treat part-pay patients in private practice if free drugs are furnished by the state.

I realize that it is the policy of the Association to leave the question of fees for medical services to the individual physician. Nevertheless, there is a very definite desire among applicants for information as to probable fee schedules. Unless steps are taken to relieve the uncertainty in the public mind concerning charges, it is quite possible that unscrupulous practitioners will open combined offices and laboratories near license bureaus and make a racket of the premarital examinations and tests by offering them for a low fee.

Of course, the State Department of Public Health is very anxious that the highest type of medical service be made available, particularly for persons who are found to be infected and in need of treatment. It is also our desire that there be no unnecessary obstacles to marriage.

It is our opinion that the majority of reputable physicians are charging only nominal fees for the examination, but we believe the public is entitled to have access to the names of such physicians and to know in advance how much will be charged.

Therefore, I suggest that in the interest of the public welfare, the California Medical Association take the lead by recommending a basic fee for premarital examinations and tests to local medical societies. Local societies could then furnish county clerks and free clinics with a list of physicians who were willing to make the examination and test for a fixed, reasonable fee. Such action would result in the elimination of the present confusion and the administration of the premarital law without hardship to either the public or the medical profession.

313 State Building.

Very truly yours,

W. M. DICKIE, M. D.,

*Director, California State Department of  
Public Health.*



## TWENTY-FIVE YEARS AGO†

### EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XII, No. 11, November, 1914

From Some Editorial Notes:

*Crime No. 46.*—"The Drugless Healer Act," initiative measure No. 46 on the election ballot to be voted for November 2, is nothing less than a crime; it has been put on the ballot largely through misrepresentation to those who signed the initiative petition.

It would license anyone who has practiced any sort of drugless healing for six months previous; chiropodists, barbers, masseurs, etc., and without any consideration of education, good moral character, etc.

All this horde of ignorant, illiterate quacks and worse, would be authorized to use the designation "Dr." and call themselves "Doctor."

They may not prescribe medicines, but they may do any sort of surgery; they may not give an ointment for a sore arm, but they may cut it off.

They are authorized to sign birth and death certificates, and any other public certificates or documents required to be signed by a doctor.

It would not directly hurt the medical profession, but it would be a calamity to the public who cannot discriminate between unknown people when they are all called alike, doctor.

There would be no way for the innocent, sick stranger to know whether he was calling in a quack or a regular physician, and he would be the sufferer.

If the initiative is carried at the election, it becomes a law without further action by the Legislature; the matter will be settled on November 2, at the polls.

Initiative No. 46 should be voted down by the people for their own protection.

How many voters can you explain this to before election day?

♦ ♦ ♦

*American Medical Association Meeting, June 1915.*—Whatever you do or do not do, don't forget the meeting of the American Medical Association in San Francisco in the third week in June, 1915.

Begin now to remember it, and to make up your mind to attend that session.

Remember, too, that there will be other medical meetings of great interest in San Francisco the week before, and the week after the American Medical Association meeting. Plan now so that you can attend some or all of these. Announcements will be made later of the societies and the dates of their meetings, and other items of interest, in connection therewith.

Remember, too, that the Exposition will be open, and that you will want to see it and study many things exhibited in it. Take your holiday in San Francisco in June next year, and combine profit and pleasure and entertainment.

♦ ♦ ♦

*Expert Testimony.*—The subject of proper expert testimony, and the doing away with the unpleasant spectacle of two groups of "experts" testifying in diametrically opposite ways because they are paid to do so, is one that has interested the better men in all professions for a good many years. Various associations of doctors, engineers, etc., have,

(Continued in Front Advertising Section, Page 25)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

## BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M. D.

Secretary-Treasurer

### News

"Charges that a 'clique of chiropractors is seeking a back-door to sneak into the practice of medicine,' were made yesterday by Dr. James C. Tobin, state president of the California Chiropractic Association. In his attack against the proponents of Proposition No. 2 on the November 7 ballot, Doctor Tobin insisted proponents of the measure are making claims that are 'deliberately false and misleading' in declaring the measure would merely increase chiropractors' educational standards. 'If their claims were true,' he said, 'all they would have to do would have been to amend Section 5 of the present chiropractic act. Instead, the voters' pamphlet reveals, they seek also to amend Section 7 so that they will be free, if so inclined, to practice any of the healing arts for which they are not trained. This is definite proof that a clique of chiropractors is seeking a back-door into the practice of medicine, surgery, dentistry, osteopathy and optometry under the guise of improving their educational standards. We chiropractors say that chiropractors under the present and under the proposed educational requirements are decidedly not qualified to practice these other healing arts.'" (San Francisco *Examiner*, October 10, 1939.)

"Attorney-General Earl Warren informed J. M. McPherson, Butte County District Attorney, he could issue a complaint against a chiropractor who advertised that he was an obstetrician. Warren pointed out that the chiropractic law forbade chiropractors engaging in obstetrics." (Sacramento *Union*, September 16, 1939.)

"Whether a chiropractor comes under the heading of 'duly licensed physician,' was the question to be settled in a test case filed today in superior court. The suit was filed by Lorne Jenking and Mrs. Bertha Manny, who were denied a marriage license because their medical examination certificate—now required of all license applicants—was signed by Kenneth W. Barron, a chiropractor. The county clerk refused to issue the license on the grounds that a chiropractor does not fill the requirements for a 'duly licensed physician.'" (Los Angeles *Evening News*, October 4, 1939.)

"On two charges of performing illegal operations—one on a 16-year-old school girl, and one of violating the state medical practice act—Lyman Noel, a chiropractor of 670 Hayes Street, appeared yesterday before Municipal Judge Thomas F. Prendergast. In the complaining witness' chair sat blond, pert Diane Marshall, 21-year-old Georgia girl. Diane, who lives at 571 Ivy Street, in a southern accent told a sordid tale of going to Noel, who, she charges, performed an illegal operation on her, kept her in his place ten days, and then put her out without funds and in such physical condition that she was forced to go to the emergency hospital for treatment. There she was interviewed by Police Inspector Frank Ahern, who also interviewed a 16-year-old school girl who is now in San Francisco General Hospital and who made similar accusations against Noel. Judge Prendergast yesterday continued the case until next Wednesday.

(Continued in Back Advertising Section, Page 36)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

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*Superintendent*

## TWENTY-FIVE YEARS AGO

(Continued from Front Advertising Section Page 30)

require it. All avenues of excretion must be clear and efficient. The skin, the kidneys and the bowels must be kept active, that waste products of an increased metabolism shall not accumulate to embarrass the defense. . . .

*From an Original Article on "Complications in Cataract Extraction," by Vard H. Hulen, M. D., San Francisco.*—It is not my purpose to discuss here all the complications and accidents incident to the cataract operation, but to touch on some important points where complications have arisen in my own cases, or which have been seen in the practice of other ophthalmic surgeons, endeavoring to make a few generally helpful deductions.

From statistics, usually taken from large clinics wherein the operators are men of extensive experience with facilities approaching the ideal for doing successful surgery of the eye, we find the percentage of success in senile cataract extractions to be as large as 95 per cent. But you will agree that if it were possible to obtain accurate final reports from every cataract operation done, the good eyes obtained would not approach the above figures. If this is the case, the cataract operation never being one of emergency, might it not be advisable and entirely feasible for practically all cataract extractions in this country to be done by those only in our specialty particularly well equipped for this kind of work? This idea is thrown out here for your contemplation, and for possible further discussion. . . .

*From an Original Article on "The Prevention of Tuberculosis in Children," by T. C. McCleave, M. D., Berkeley.*—The finer diagnostic methods of recent years have led many

investigators to the conviction that tuberculosis is essentially, in its origin, a disease of childhood. The occurrence, before the age of puberty, of positive tuberculin reactions in almost all individuals tested; the revelations of the Roentgen ray as to the frequency of diseased bronchial and other lymph nodes heretofore largely overlooked; the similar disclosure of incipient lung changes; the significance of all of which, being confirmed by the necropsy findings in the bodies of a large proportion of the children coming to autopsy, indicates that infection with the tubercle bacillus is commonly an incident of very early life.

The ultimate solution of the problem of the eradication of tuberculosis must lie, it would seem, in the prevention of this early infection. . . .

*From an Original Article on "A Case of Achondroplasia," by George H. Evans, M. D., San Francisco, and Howard E. Ruggles, M. D., San Francisco.*—Vernie D., age 15 years, a school girl, was referred to me June 11, 1914, complaining of right temporal headaches and much nasal catarrh. She had always been bright until the last few months, since which time she has had difficulty in keeping up with her school work, has become forgetful and speech at times seems difficult. She has lately had some night sweats. Digestion is good and bowels are regular. . . .

*From "Western Orthopedic Club."*—In response to a call issued by Dr. Harry M. Sherman, a meeting was held in San Francisco on February 22, 1914, and the Western Orthopedic Club was organized.

The following physicians interested in orthopedic surgery were invited to attend and constituted the original membership. . . .

The swaddled infant pictured at right is one of the famous works in terra cotta exquisitely modeled by the fifteenth century Italian sculptor, Andrea della Robbia. In that day infants were bandaged from birth to preserve the symmetry of their bodies, but still the gibbous spine and distorted limbs of severe rickets often made their appearance.



*A bambino from the Foundling Hospital, Florence, Italy,—A. della Robbia*

Glisson, writing in 1671, described an ingenious use of swaddling bands — "first crossing the Brest and coming under the Armpits, then about the Head and under the Chin and then receiving the hands by two handles, so that it is a pleasure to see the Child hanging pendulous in the Air . . . This kind of Exercise . . . helpeth to restore the crooked Bones. . . ."

## STRAPPED FOR RICKETS

SWADDLING was practised down through the centuries, from Biblical times to Glisson's day, in the vain hope that it would prevent the deformities of rickets. Even in sunny Italy swaddling was a prevailing custom, recommended by that early pediatrician, Soranus of Ephesus, who discoursed on "Why the Majority of Roman Children are Distorted."

"This is observed to happen more in the neighborhood of Rome than in other places," he wrote. "If no one oversees the infant's movements, his limbs do in the generality of cases become twisted. . . .

Hence, when he first begins to sit he must be propped by swathings of bandages. . . ." Hundreds of years later swaddling was still prevalent in Italy, as attested by the sculptures of the della Robbias and their contemporaries. For in-

fants who were strong Glisson suggested placing "Leaden Shooes" on their feet and suspending them with swaddling bands in mid-air.

How amazed the ancients would have been to know that bones can be helped to grow straight simply by internal administration of a few drops of Oleum Percomorphum. What to them would have been a miracle has become a commonplace of science. Because it can be administered in drop dosage, Oleum Percomorphum is especially suitable for young

and premature infants, who are most susceptible to rickets. Its vitamins A and D derived from natural sources, this product has 100 times the potency of cod liver oil.\* Important also to your patients, Oleum Percomorphum is an economical antiricketic.

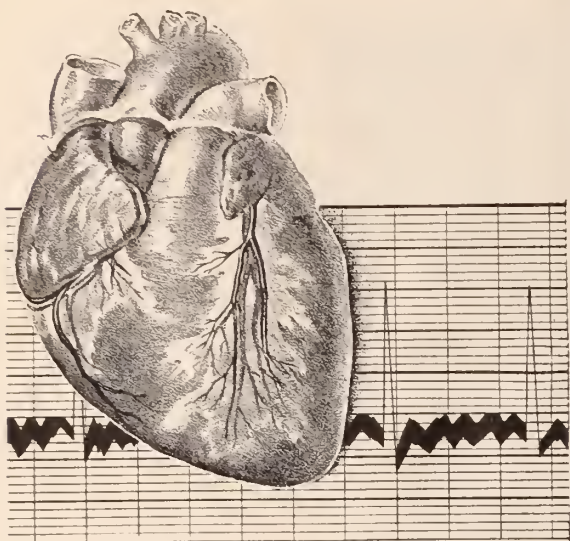
Oleum Percomorphum offers not less than 60,000 U.S.P. vitamin A units and 8,500 U.S.P. vitamin D units per gram. Supplied in 10 and 50 c.c. bottles, also in boxes of 25 and 100 ten-drop soluble gelatin capsules containing not less than 13,300 vitamin A units and 1,850 vitamin D units (equal to more than 5 teaspoonfuls of cod liver oil\*).

\*U.S.P. Minimum Standard

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THE cardiac rhythm in auricular fibrillation is effectively improved with DIGIFOLINE, "Ciba". One tablet, one cc. of liquid, or one ampule\*\* gives the response of  $1\frac{1}{2}$  grains of high-grade digitalis leaf. Oral, intravenous, intramuscular, or rectal administration.

\*\*Each equivalent to one cat unit.

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Indicated in auricular fibrillation, congestive circulatory failure, loss of cardiac tone.

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●MANY physicians recommend the water in conjunction with the treatment of stomach, liver and kidney trouble.

ADAMS MINERAL SPRINGS is one of these seven known iron and manganese bi-carbonate springs in the world, and the only one in Western America.

It is not a cure-all, but it overcomes acid excesses in the body, and is a very mild but wonderfully effective eliminator. The bowels function without spasm, the kidney output is greatly increased, and there is marked drainage of bile from the gall bladder and liver.

There is also some constitutional upset for a few days, particularly in gall bladder cases. But this is soon over and your patient begins to show improvement and is now in condition to profit by any medication you may prescribe. If the case is an operative one, you have improved your patient and made of him a better risk.

We will be pleased to cooperate in any way whatever, and samples of water are yours for the asking.

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CHLORINE . . . . .	38.3 parts per million
SULPHATE . . . . .	16.1 parts per million
NITRATE . . . . .	0 parts per million
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TOTAL . . . . .	2591.4 parts per million

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3000 feet up  
in the Lake  
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### BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 354)

nesday, at which time the school girl will appear to add her testimony." (San Francisco Examiner, October 12, 1939.)

"Seeking to forestall sentence on a morals assault conviction, Dr. P. S. O'Reilly, Glendale osteopath, found guilty by a jury of beating his 22-year-old telephone operator, Miss Walene McCarthy, yesterday filed notice of intention to move for a new trial. Simultaneously, Doctor O'Reilly asked Superior Judge Frank M. Smith for permission to apply for probation, which was granted. The court set October 26 as the date for hearing on the new

(Continued on Page 38)

# METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

## II. Determination of Ascorbic Acid

● The first practical method for quantitative estimation of vitamin C in foods was that evolved by Sherman and his associates in 1922 (1).

In this technique selected guinea pigs were confined to a scurvy producing ration supplemented with green succulent vegetables—a source of vitamin C—for a suitable period to demonstrate that the animals were growing at a normal rate. The supplementary feeding of succulent vegetables was discontinued when the animals had attained the proper weight, and the feeding of graded daily doses of the material under assay begun and continued over a 90-day period. At the end of this period, the animals were sacrificed and the degree of protection against pathologic changes characteristic of scurvy provided by the various dosages then was determined by dissection and examination of the organs and tissues. The quantity (daily dose) of the food required to prevent incidence of scurvy symptoms—the protective dose—eventually became known as the “Sherman Unit” for vitamin C, or the “minimum protective dose.”

This bioassay technique underwent gradual improvement, both as to the basal ration (2) and as to a numerical system of evaluating and recording the severity of the scurvy symptoms; the so-called “scurvy score” (3). Methods employing shorter assay periods, such as the formal preventive type of assay with a 60-day assay period (4), or a method based upon histologic exami-

nation of the teeth (5), as well as curative techniques (6), have been proposed and used for the determination of vitamin C activity of foods. However, today the improved Sherman bioassay technique employing ascorbic acid as a standard of reference and a relatively long assay period is still regarded as the standard method for vitamin C determination (7).

Some six years ago, a chemical method for ascorbic acid estimation was proposed (8, 9) and immediately came into widespread use. Judiciously and circumspectly used, this method has proven a most valuable tool. By acid extraction of a known quantity of food followed by removal of certain proximate food components, ascorbic acid present in the extract may be quantitatively titrated by a standard solution of 2,6-dichlorophenolindophenol. Under proper conditions this reagent is quantitatively reduced by ascorbic acid to a colorless compound. A faint pink color in the acid solution produced by one excess drop of the reagent indicates the completion of the oxidation-reduction titration.

Development of this chemical method has stimulated many researches on the ascorbic acid contents of foods, among them many canned foods (10). Results of investigations by the chemical or bioassay technique (11) reveal that the canned varieties of foods notable for their natural ascorbic acid contents can also be numbered among the most valuable sources of this dietary essential available to the American Consumer.

## AMERICAN CAN COMPANY

230 Park Avenue, New York, N. Y.

- |  |   |
|--|---|
| (1) 1922. J. Am. Chem. Soc. 44, 165.   | (8) 1933. Ztschr. f. Untersuch. d. Lebensmitt. 65, 145.             |
| (2) 1929. Am. J. Pub. Health 19, 1309.   | (9) 1933. J. Biol. Chem. 103, 687.                                  |
| (3) 1926. A Study of the Thermostability of Vitamin C. C. L. Kenny, Dissertation, Columbia University, New York. | (10) 1937. U. S. Dept. Agr. Miscellaneous Publication No. 275, 104. |
| (4) 1930. J. Agr. Research 41, 51.   | (11) 1922. J. Am. Chem. Soc. 44, 172.                               |
| 1931. J. Agr. Research 42, 35.   | 1925. Ind. Eng. Chem. 17, 69.                                       |
| (5) 1926. Brit. J. Exper. Path. 7, 356.  | 1926. Ibid 18, 85.  |
| (6) 1933. Biochem. J. 27, 2006.  | 1930. J. Home Econ. 22, 588.  |
| 1936. Food Research 1, 3.  | 1935. Am. J. Pub. Health 25, 1340.                                  |
| (7) 1938. J. Am. Med. Assoc. 111, 1290.  | 1938. J. Am. Med. Assoc. 110, 650.                                  |
|  | 1938. Ibid. 111, 2138.  |

*We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-third in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.*



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.





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Consultation is private—and entails no charge or obligation. We will gladly prepare an Audiogram for any patient for whom you request such service—showing his hearing range WITHOUT and also the increased range WITH the CRYSTALLIC ACOUSTICON.

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LOS ANGELES

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Acousticon is accepted by the Council on Physical Therapy of the American Medical Association.

## BOARD OF MEDICAL EXAMINERS

(Continued from Page 36)

trial motion and the probation plea. Doctor O'Reilly was convicted of assaulting Miss McCarthy with intent to attack her last May 16 in his Glendale home after taking her out to dinner." (Los Angeles Times, October 4, 1939.)

"Texas has a law prohibiting aliens from taking examination to secure a license to practice medicine in that state. The law has just been upheld by a Texas court. If that law is good, then aliens could be prohibited from engaging in any form of business or employment in Texas. . . . Any person who comes to America from a foreign shore and remains here because it is a better place to live, should show his appreciation of this country's protection by becoming a citizen. . . ." (Editorial, Santa Rosa Republican, September 21, 1939.)

"Death of one of his 'patients' subjected an ex-convict to investigation by the State Board of Medical Examiners and his ultimate commitment to the Imperial County jail for a year. William Hickman Dearing, Negro-Indian,

Wednesday pleaded guilty to two charges of practicing medicine without a license. Judge T. E. White imposed sentence in Winterhaven justice court Wednesday. The charges were brought against Dearing by W. N. Anderson, special agent of the Board of Medical Examiners. The investigation started after Mrs. Doneico Martinez Medina, 32, Glamis resident, died at Ogilby while en route to the county hospital last Friday. . . ." (El Centro Press, September 28, 1939.)

"A second trial will be held for William H. Neher of La Verne, when he appears before Justice of the Peace Will G. Fields in Pomona, charged with practicing and prescribing medicine without a license. . . . S. W. Brooks of the state medical board signed the second complaint this week, and Neher is this time charged on six counts, each one relating to a separate treatment on different persons, who are expected to testify at a trial on October 9." (San Dimas Press, September 28, 1939.)

"Doctors serving the municipal employee's Health Service Board will receive 66 cents for each \$1 of service given

(Continued on Page 40)

In the treatment of pneumonia—

## SULFAPYRIDINE

*Lederle*

THERE IS AN EVER-INCREASING ACCUMULATION of clinical reports supporting the value and importance of Sulfapyridine in the treatment of pneumococcal pneumonias.

It is recommended that after the taking of sputum for type-determination, Sulfapyridine be given to all cases as soon as the clinical diagnosis of pneumonia is made unless otherwise specifically contraindicated.

The use of Sulfapyridine has in no way altered the necessity for bacteriologic control. Etiologic diagnosis and cultural study is basic to sound therapeutics and should be considered as much a part of the present-day treatment of pneumococcal pneumonias as the employment of specific agents and the use of proper supportive measures.

Daily blood counts and urinalysis should be made for evidence of hemolytic anemia, leukopenia and hematuria. One of the most serious complications that should be looked for is interference with kidney function.

It is indicated that the combined use of Sulfapyridine and Specific Serum provides an advantageous means of treatment. If the physician elects to attempt treatment with Sulfapyridine alone, he should observe the patient closely and if at the end of 18 to 24 hours an adequate response has not occurred, serum should be administered immediately.

The booklet "Treatment of Pneumococcal Pneumonias with Sulfapyridine and Type Specific Antiserums *Lederle*," a new detailed discussion of the proper procedure for the use of Sulfapyridine and Type Specific Serum, has recently been issued and will be sent upon request.

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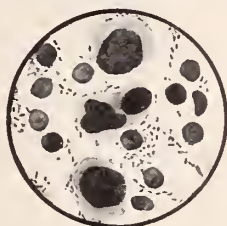
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*Pneumococcus* Type 7 (mouse virulent)—Inoculum and exposure constant

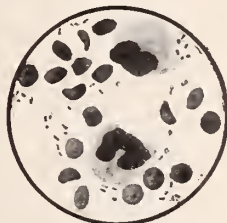
#### CONTROL

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No capsule swelling;  
No phagocytosis.



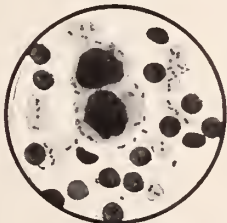
#### SULFAPYRIDINE (1:10,000)

Pneumococci few;  
No capsule swelling;  
No phagocytosis.



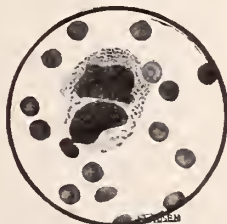
#### RABBIT SERUM (5 units)

Pneumococci evident;  
Capsules swollen;  
Partial phagocytosis.



#### SULFAPYRIDINE (1:10,000) AND SERUM (5 units)

No free pneumococci;  
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## BOARD OF MEDICAL EXAMINERS

(Continued from Page 38)

during July, Cameron King, Health Service Board president, announced today. Payment for July services was 9 cents in excess of the June disbursement and the largest since January, Mr. King said. He predicted the doctors would receive at least 66 cents on the dollar for August services." (San Francisco News, September 13, 1939.)

"Found guilty recently on charges of prescribing a medicine containing narcotics in a manner not permitted by the Harrison Act, Dr. Ralph Wayne Harris yesterday was fined \$1,000 and placed on two years' probation by Federal Judge Leon R. Yankwich." (San Francisco Examiner, September 12, 1939.)

"Drug store clerks are not qualified venereal disease practitioners, nor are they allowed to prescribe any medicines, Dr. W. M. Dickie, director of the State Department of Public Health, warned here yesterday. Doctor Dickie's statement came at the close of an investigation of the State Board of Medical Examiners and the Department of Health which revealed that 'thousands of persons had been victimized by unscrupulous druggists and quacks,' who had unlawfully prescribed treatment and medicines. The investigation culminated yesterday in the arrest of Charles N. Courtright, 62, Sixth Street pharmacist, living at 300 Edgehill Way, by Thomas Hunter, special agent for the medical board. Courtright's arrest on a charge of practicing medicine without a license came after one victim had reported the medicine he prescribed had aggravated his condition. . . ." (San Francisco Examiner, October 5, 1939.)

"Dr. Clyde A. Pierson, osteopathic physician-surgeon, was indicted yesterday by the county grand jury on a charge of murder involving the death of an 18-year-old San Bernardino high school girl, who died from infection following an abortion. Shortly after the true bill was returned by the jury in Judge Charles L. Allison's court, Doctor Pierson was arrested at his office, 1239 "E" Street. He is being held in the county jail without bail. . . . The indictment . . . charged that Doctor Pierson did 'unlawfully kill and murder Hazel Waters.' The girl died at the county hospital August 27 from what an inquest jury said was a 'postabortal infection.' . . . Doctor Pierson was also indicted by the 1935 grand jury on a charge of murder involving an abortion, together with three other defendants. After a five weeks' trial, the jurors were unable to reach a verdict, and the charge was dismissed. . . ." (San Bernardino Sun, September 13, 1939.) (Previous entry, May, 1935.)

"By urgent request, two policemen paid a visit early yesterday to the swank Nob Hill penthouse occupied by Dr. St. Louis Estes, who makes better than a fair living telling folks to munch raw cracked wheat, and gnaw raw carrots, and stay away from alcoholic beverages. The two policemen said that Dr. St. Louis Estes, who used to expound the theory of 'brain breathing,' was not exactly in the pink, either physically or mentally. They said he seemed to be beset by throbbing temples and a fuzzy tongue, and a vagueness of memory, and a certain apparent feeling of lassitude, and they said they didn't think it was something he ate. He wanted to talk to them, they reported, about \$3,800 that vanished from his custody shortly after he made a speech to the effect that this one was on him. Doctor Estes, the policemen reported, wasn't exactly definite or lavish with

(Continued on Page 42)

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## BOARD OF MEDICAL EXAMINERS

(Continued from Page 40)

details, and there were broad gaps in parts of his narrative, but he connected the disappearance of his \$3,800 with a blond man in a check suit, and a woman, who had long eyelashes and blonde hair, which went quite well with her dark skin. By dint of considerable brain breathing, the policemen said, Doctor Estes was able to recall that he went to a branch bank on Monday, and thence to a restaurant, where he presumably scoffed raw cauliflower and other uncooked flora, and thereafter he went to a tavern where he admittedly disregarded his own advice about alcoholic beverages. As a matter of fact, the policeman said bluntly, the doctor had been drinking rather heavily. They said he admitted setting 'em up for everybody in the joint, after which he met the dark-skinned blonde, or the light-haired

brunette, and her boy friend. That called for purchase of two bottles, and a trip to Doctor Estes' hotel, he informed the officers. During the course of the two bottles, the doctor learned that the man in the checked suit and the girl with the long eyelashes had no place to sleep, he said, so he invited them to sleep in the penthouse. This arrangement was possible, the officers learned, because Mrs. Dr. St. Louis Estes, and their twelve raw food babies were out of town. So, said Doctor Estes, he and the checked suit slept in the twin beds, while the long eyelashes went to bed on a chesterfield. That was around 10 p. m., the doctor said. He told the policemen that his guests apparently didn't sleep well. He said when he awoke, a few hours later, his guests were up and gone. Also missing, he said, was his \$3,800. Inspectors Dave Brady and George Dyer, who heard the story, learned from the elevator operator that the doctor and his two guests went up at 9:30, and that the two guests

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came down an hour later. They learned from the hotel manager that it was not unusual for Doctor Estes to walk around with a roll that big, or bigger. They expressed doubt that the man with the checked suit and the lady with the long eyelashes were very polite when they left the penthouse without saying thanks or goodnight." (San Francisco *Examiner*, September 13, 1939.) (Previous entries, May, 1930; November, 1935; January and March, 1936; December, 1938.)

"Convicted of drunk-driving by Municipal Judge Byron Walters, Dr. Harry A. Conway, 45, yesterday was given one year's probation and a 180-day suspended jail sentence on condition that he pay a \$100 fine at the rate of \$10 per month. . . ." (Los Angeles *Herald and Express*, September 19, 1939.) The records of the Board of Medical Examiners show that an individual named Henry A. Conway failed in the written examination given in March, 1919, and in July, 1929.

"Dr. David Edgar Greenwood, 54, of 613 West Washington Street, Alhambra, today was in jail awaiting preliminary hearing on charges of performing an abortion on Vivian Summerhays, 19, of 1328 Cogswell Road. The girl is now in General Hospital, reported to be in a serious condition as a result of the operation. Doctor Greenwood was ordered held following an arraignment in San Antonio justice court." (Los Angeles *Evening News*, September 28, 1939.)

"Charged with violating Section 2141 of the California Business and Professions Code, T. A. Schuback was fined \$100 and given a six-month suspended sentence yesterday

(Continued on Next Page)



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## BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

when he appeared before City Judge J. C. Ferguson. Seventy-five dollars of the fine was suspended and Schuback was placed on probation for two years, provided he does not violate any sections of the code. . . . All evidence seized when Schuback was arrested Sunday night was ordered confiscated. He was arrested by Officer Elmer Briscoe and Joseph W. Williams of the California State Board of Medical Examiners." (Lodi Times, September 26, 1939.)

"Ira E. Trotter, Oakland barber, finished cutting his customer's hair yesterday. The customer held up his hand, displayed a wart on his index finger. 'I can fix it,' said Trotter. 'Go ahead,' said the customer. Trotter got out an electric needle, and went to work, conversing as he worked. 'Have to be mighty careful. State medical people have been watching me. They call this surgery. I have to watch my step.' The operation completed, the customer paid his fee. 'So long,' said Trotter. 'We're both going,' said the customer. I'm Thomas Hunter, investigator for the State Board of Medical Examiners. You are charged with practicing medicine without a license.' Free under \$50 bail,

Trotter will appear for hearing today." (San Francisco Examiner, October 11, 1939.)

"W. E. Thanning, 614 Wilshire Boulevard, today pleaded guilty in police court to one count of practicing medicine without a state license. Two other counts were dismissed by Judge Milan E. Ryan, and the defendant was given a suspended sentence of 30 days in the county jail and was ordered to comply with the law in the future. . . ." (Santa Monica Outlook, September 26, 1939.)

"Dr. Walter E. Soper, Turlock chiropractor, pleaded guilty Saturday in the Justice Court here to a charge of practicing medicine without a state license. He was given a 60-day jail sentence by Judge Dan E. Kilroy, suspended on condition that he confine his practice to that of a chiropractor. Soper was arrested August 26 by T. P. Hunter, special agent of the State Medical Examiners. He pleaded not guilty, and has been at liberty under \$200 cash bail pending trial. A quantity of medicine and case of medical instruments found in Doctor Soper's office were confiscated by Hunter." (Press dispatch dated Turlock, October 2, printed Stockton Record, October 2, 1939.)



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"W. C. Fields, bulbous-nosed comedian, tonight lost out a second time, but to much smaller tune, in his legal battle with Dr. Jesse Citron, Hemet physician, who claimed, among other things, he had cured the screen and radio star of drinking up to two quarts of whisky a day. A jury in Riverside superior court awarded Doctor Citron \$2,000. Two years ago Doctor Citron won a verdict of \$12,000." (San Francisco *Examiner*, September 26, 1939.)

"Dr. Charles H. Wilson, chiropractor of 215 South Vermont Avenue, last week was sentenced to a year in jail and placed on five years' probation by Superior Judge Frank Swain, following his plea of guilty to manslaughter in the case of a woman who died after an illegal operation." (Wilshire *Press* (Los Angeles), September 21, 1939.)

"Dr. Wallace J. Smith, Chico chiropractor, is at liberty under \$250 bail, following his arrest on a charge of violating the State Business and Professions Code by practicing obstetrics. Dr. C. C. Landis, a doctor of medicine in whose hospital Smith is accused of having practiced in the delivery of babies, is cited to appear before the State Board of Medical Examiners on October 17 to explain a charge of aiding and abetting the unlicensed practice of medicine. Smith said: 'I have not violated any law in carrying on my practice in Chico. I have practiced simple obstetrics in all of the hospitals openly and when necessary had the assistance of regularly licensed physicians.'" (Press dispatch dated Chico, October 9, printed Sacramento *Bee*, October 9, 1939.)

Investigation reports relate that H. J. Evans, on or about September 8, 1939, pleaded guilty in Municipal Court  
(Continued on Next Page)

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## BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

at San Diego to a charge of violation of the Business and Professions Code relating to the practice of medicine, and was sentenced to pay a fine of \$100; which sentence was suspended for one year on condition that he no longer advertise or violate the Business and Professions Code.



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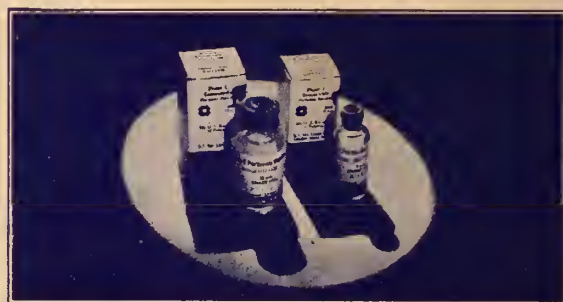
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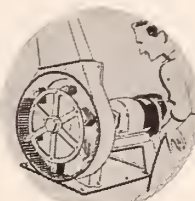


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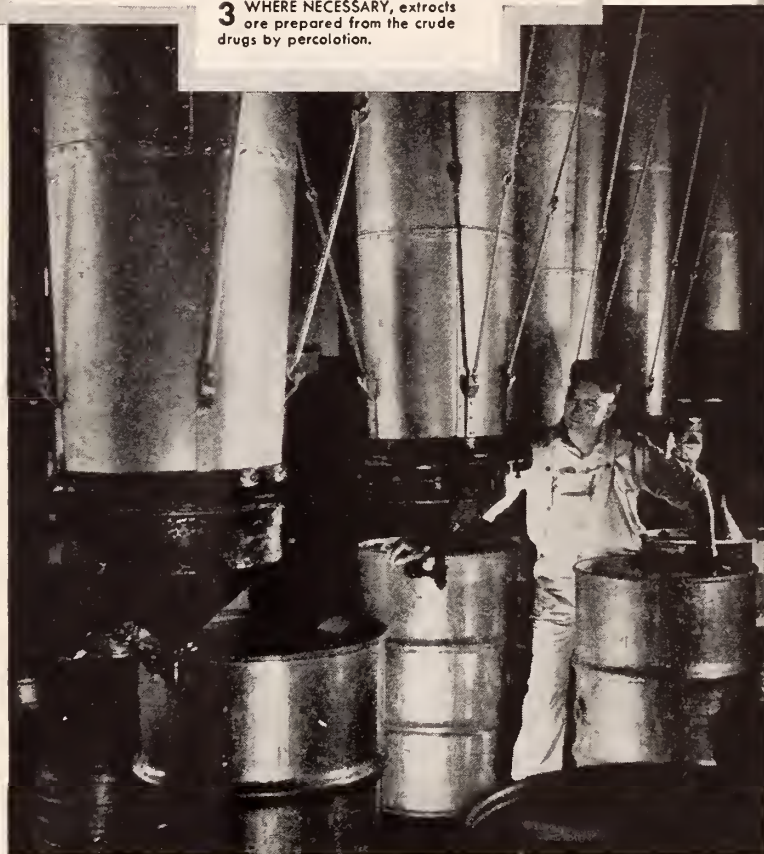
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(In addition to the elected district and at-large Councilors, the Council has as ex officio members, the general officers and the Chairman of the Committee on Public Relations. Chairman of Council, Karl L. Schaupp; Secretary, George H. Kress.)

District Councilors		Councilors-at-Large	
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Second District—Los Angeles, Inyo and Mono Counties, George D. Maner (1942), 657 South Westlake Avenue, Los Angeles.	Sixth District—San Francisco County, Karl L. Schaupp (1940), 530 Medico-Dental Building, 490 Post Street, San Francisco.	William H. Kiger (1940), 911 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.	
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	Ninth District—Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Siskiyou, So-	Elbridge J. Best (1942), 384 Post Street, San Francisco.	
		Frederick N. Scatena (1940), Medico-Dental Building, 1127 Eleventh Street, Sacramento.	

## Standing Committees

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		Ruggles A. Cushman.....	Talmage 1941
		Francis E. Toomey.....	San Diego 1942
		Secretary ex officio	
		Editor ex officio	
Auditing Committee		Committee on Public Policy and Legislation	
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O. D. Hamlin.....	Oakland 1940	Junius B. Harris (Chairman).....	Sacramento 1941
Elbridge J. Best.....	San Francisco 1940	T. Henshaw Kelly.....	San Francisco 1942
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Edwin L. Bruck.....	San Francisco 1941	J. Homer Woolsey.....	Woodland 1941
Willard H. Newman.....	San Diego 1942	Howard F. West.....	Los Angeles 1942
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Benjamin W. Black.....	Oakland 1940	Frederick S. Foote, Secretary of Section on General Surgery, ex officio	
Roy E. Thomas (Chairman).....	Los Angeles 1941	George H. Kress, Secretary of California Medical Association, (Chairman) ex officio	
William Dock.....	San Francisco 1942	Committee on Public Relations	
Committee on History and Obituaries		The Committee on Public Relations consists of the chairmen of the following standing committees and of certain general officers of the Association, all serving ex officio. The chairman of the committee is George G. Reinle, the secretary is George H. Kress. The director of the Department of Public Relations is George H. Kress. The chairman of the Committee on Public Relations is ex officio a member of the Council.	
A. Elmer Belt.....	Los Angeles 1940	Roy E. Thomas.....Chair., Com. on Health and Public Instruction	
Frank R. Makinson (Chairman).....	Oakland 1941	J. Norman O'Neill.....Chair., Com. on Hospitals, Dispensaries, Clinics	
J. Marion Read.....	San Francisco 1942	Donald Cass.....Chair., Com. on Industrial Practice	
Secretary ex officio		George G. Reinle.....Chair., Com. on Medical Defense	
Editor ex officio		George D. Maner.....Chair., Com. on Membership and Organization	
Committee on Hospitals, Dispensaries and Clinics		John H. Graves.....Chair., Com. on Medical Economics	
Karl L. Schaupp.....	San Francisco 1940	Junius B. Harris.....Chair., Com. on Public Policy and Legislation	
George I. Dawson.....	Napa 1941	Alson R. Kilgore.....Chair., Cancer Commission	
J. Norman O'Neill (Chairman).....	Los Angeles 1942	Dwight L. Wilbur.....Chair., Com. on Postgraduate Activities	
Committee on Industrial Practice		Charles A. Dukes.....President of California Medical Association	
Harry E. Zaiser.....	Orange 1940	Harry H. Wilson.....President-elect	
Morton R. Gihbons.....	San Francisco 1941	George H. Kress.....Secretary-Treasurer	
Donald Cass (Chairman).....	Los Angeles 1942	Communications for the Public Relations Department should be addressed to the Director, George H. Kress, M. D., Room 2004, 450 Sutter Street, San Francisco.	
Committee on Medical Defense		Cancer Commission	
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George G. Reinle (Chairman).....	Oakland 1941	Lyell C. Kinney (Vice-Chairman).....	San Diego 1940
William J. Van Den Berg.....	Sacramento 1942	Otto H. Pfeuger (Secretary).....	San Francisco 1940
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Edward M. Pallette, Sr.....	Los Angeles 1940	A. Herman Zeiler.....	Los Angeles 1941
John H. Graves (Chairman).....	San Francisco 1941	Gertrude Moore.....	Oakland 1941
L. W. Hines.....	Santa Rosa 1942	Clarence J. Berne.....	Los Angeles 1942
Committee on Medical Education and Medical Institutions		Alson R. Kilgore (Chairman).....	San Francisco 1942
John B. Doyle.....	Los Angeles 1940	Henry J. Ullmann.....	Santa Barbara 1942
B. O. Raulston.....	Los Angeles 1941	Communications for the Cancer Commission should be addressed to the Secretary, Otto H. Pfeuger, M. D., Room 2004, 450 Sutter Street, San Francisco.	
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(Roster lists of officers of scientific sections, component county societies, Woman's Auxiliary, A. M. A. delegates, special committees, etc., are continued on advertising pages 4 and 6.)

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**Lupus and Pulmonary Tuberculosis.**—Lupus patients rarely die of lupus, according to the conclusion drawn from a study of 211 patients who died after attending the skin department of the Finsen Institute of Copenhagen in the last twenty-five years. While lupus seldom proves fatal, other manifestations of tuberculosis, particularly pulmonary tuberculosis, are a frequent cause of death. In many fatal cases of pulmonary tuberculosis the disease of the lungs becomes manifest shortly after treatment of the lupus has been instituted. If the lupus patient can avoid death from tuberculosis he has a good chance of living to a ripe old age.—C. N. S. Gudtoft, *The Journal of the American Medical Association*, September, 1939.

## California Packet Library Services

In connection with postgraduate and other studies, the packet library facilities of the larger medical libraries of California may be mentioned. Letters regarding literature, etc., may be addressed to the librarians of the following institutions:

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Lane Medical Library (Stanford), 2398 Sacramento Street, San Francisco.

Barlow Medical Library (Los Angeles County Medical Association), 634 South Westlake, Los Angeles.

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# ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to promptly notify "California and Western Medicine" when changes are indicated in their roster information.)

**Alameda County Medical Association**  
2404 Broadway, Oakland  
President, Frank H. Bowles, 426 Seventeenth Street, Oakland.  
Secretary, Gertrude Moore, 2404 Broadway, Oakland.  
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

**Butte County Medical Society**  
President, E. L. Meyers, Fourth Street and Broadway, Chico.  
Secretary, J. O. Chiapella, 131 Broadway, Chico.  
Meeting, *Second Thursday.*

**Contra Costa County Medical Society**  
President, Kaho Daily, 314 Tenth Street, Richmond.  
Secretary, Clifford E. Dietrich, 1306 Pomona Avenue, Crockett.  
Meeting, *Second Tuesday, 8 p. m.*

**Fresno County Medical Society**  
President, Roland W. Dahlgren, 1006 Mattei Building, Fresno.  
Secretary, Lester R. Nielson, 1006 Mattei Bldg., Fresno.  
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

**Humboldt County Medical Society**  
President, Samuel P. Burre, 507 F Street, Eureka.  
Secretary, Joseph S. Woolford, 350 E Street, Eureka.  
Meeting, *First Thursday.*

**Imperial County Medical Society**  
President, Henry B. Graeser, 115 E. Fifth Street, Holtville.  
Secretary, William A. Clarke, Holtville.  
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

**Inyo-Mono County Medical Society**  
President, Lloyd S. Bambauer, 705 Home Street, Bishop.  
Secretary, Selda E. Anthony, 303 No. Edwards, Independence.  
Meeting, *Fourth Wednesday, Methodist Church, Bishop, except December, January, February.*

**Kern County Medical Society**  
President, C. I. Mead, Haferfelde Building, Bakersfield.  
Secretary, C. S. Compton, 428 C Street, Bakersfield.  
Meeting, *Third Thursday, 8:00 p. m.*

**Kings County Medical Society**  
President, P. K. Edmunds, Corcoran.  
Secretary, William A. Johnstone, Hanford.  
Meeting, *Second Monday, 8 p. m., Legion Hall, Hanford.*

**Lassen-Plumas-Modoc County Medical Society**  
President, C. I. Burnett, Susanville.  
Secretary, Fred J. Davis, Jr., 920 Pine Street, Susanville.  
Meeting, *On Call.*

**Los Angeles County Medical Association**  
1925 Wilshire Boulevard, Los Angeles  
President, William H. Daniel, 1930 Wilshire Boulevard, Los Angeles.  
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.  
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

**Marin County Medical Society**  
President, Harry N. Hensler, Home Market Building, San Anselmo.  
Secretary, Carl W. Clark, 510 B Street, San Rafael.  
Meeting, *Fourth Thursday, 7:00 p. m., Marin Golf and Country Club.*

**Mendocino-Lake County Medical Society**  
President, Robert B. Smalley, Willits.  
Secretary, Dallas Wagner, Fort Bragg.  
Meeting, *On Call.*

**Merced County Medical Society**  
President, E. M. Soderstrom, Merced.  
Secretary, Fred O. Lien, Shaffer Building, Merced.  
Meeting, *Third Thursday, Hotel Tioga, Merced.*

**Monterey County Medical Society**  
President, Walter P. Farr, 308 Main Street, Salinas.  
Secretary, Herbert Archibald, Salinas National Bank Building, Salinas.  
Meeting, *First Thursday.*

**Napa County Medical Society**  
President, Alexander H. McLeish, Veterans Home Hospital, Yountville.  
Secretary, M. M. Booth, Bruck Building, St. Helena.  
Meeting, *First Wednesday.*

**Orange County Medical Society**  
President, M. W. Hollingsworth, 1806 No. Main Street, Santa Ana.  
Secretary, Glenn Curtis, 323 North Pomona Street, Brea.  
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital Orange.*

**Placer County Medical Society**  
President, William M. Miller, Auburn.  
Secretary, Robert A. Peers, Colfax.  
Meeting, *At Call of President.*

**Riverside County Medical Society**  
President, N. K. Bear, 3655 Fourteenth Street, Riverside.  
Secretary, Thomas A. Card, 3616 Main Street, Riverside.  
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

**Sacramento Society for Medical Improvement**  
President, Manuel Azevedo, 1027 Tenth Street, Sacramento.  
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.  
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

**San Benito County Medical Society**  
President, J. M. O'Donnell, Hollister.  
Secretary, L. E. Smith, Hollister.  
Meeting, *At Call of President.*

**San Bernardino County Medical Society**  
President, Delbert B. Williams, 1151 D Street, San Bernardino.  
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.  
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

**San Diego County Medical Society**  
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego  
President, Hall G. Holder, 1109 Medico-Dental Building, San Diego.  
Secretary, C. V. Bernardini, Medico-Dental Building, 233 A Street, San Diego.  
Meeting, *Second Tuesday, El Cortez Hotel.*

**San Francisco County Medical Society**  
2180 Washington Street, San Francisco  
President, Edwin L. Bruck, 384 Post Street, San Francisco.  
Secretary, L. Henry Garland, 2180 Washington Street, San Francisco.  
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

**San Joaquin County Medical Society**  
President, N. P. Johnson, Medico-Dental Building, Stockton.  
Secretary, George H. Rohrhacher, Medico-Dental Building, Stockton.  
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

**San Luis Obispo County Medical Society**  
President, J. B. V. Butler, 722 Marsh Street, San Luis Obispo.  
Secretary, E. M. Bingham, County Health Department, San Luis Obispo.  
Meeting, *Third Saturday, 6:30 p. m., Gold Dragon Cafe, San Luis Obispo.*

(Roster lists continued on advertising page 6)

**San Mateo County Medical Society**  
President, N. D. Morrison, 205 Third Avenue, San Mateo.  
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.  
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

**Santa Barbara County Medical Society**  
President, W. H. Johnston, 1515 State Street, Santa Barbara.  
Secretary, D. H. McNamara, 317 W. Pueblo Street, Santa Barbara.  
Meeting, *Second Monday, Cottage Hospital.*

**Santa Clara County Medical Society**  
President, Cletus S. Sullivan, Bank of America Building, San Jose.  
Secretary, Leslie B. Magoon, 652 East Santa Clara Street, San Jose.  
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

**Santa Cruz County Medical Society**  
President, John T. Harrington, 10 Cooper Street, Santa Cruz.  
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.  
Meeting, *First Monday, 7:30 p. m., Club Rio del Mar, Aptos.*

**Shasta County Medical Society**  
President, B. F. Saylor, Redding.  
Secretary, Morton J. Murphy, 1542 Market Street, Redding.  
Meeting, *Second Monday.*

**Siskiyou County Medical Society**  
President, J. B. McGuire, Mt. Shasta.  
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.  
Meeting, *Sunday on call.*

**Solano County Medical Society**  
President, Ream S. Leachman, 727 Sonoma Street, Vallejo.  
Secretary, John W. Green, Box 539, Vallejo.  
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

**Sonoma County Medical Society**  
President, D. C. Oakleaf, 301A West Street, Healdsburg.  
Secretary, T. E. Alhers, 600 B Street, Santa Rosa.  
Meeting, *Second Thursday.*

**Stanislaus County Medical Society**  
President, John A. Cooper, 1024 J Street, Modesto.  
Secretary, Hoyt R. Gant, 403 Beaty Building, Modesto.  
Meeting, *Second Friday, 7:30 p. m., Hotel Hughson.*

**Tehama County Medical Society**  
President, O. T. Wood, Red Bluff.  
Secretary, R. G. Frey, Red Bluff.  
Meeting, *At Call of President.*

**Tulare County Medical Society**  
President, Newton Miller, 231 No. Main Street, Porterville.  
Secretary, Ray Cronemiller, Exeter.  
Meeting, *Sunday Evening once a month.*

**Ventura County Medical Society**  
President, W. F. Mosher, 34 No. Ash Street, Ventura.  
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.  
Meeting, *Second Tuesday, Ventura County Country Club.*

**Yolo-Colusa-Glenn County Medical Society**  
President, H. G. Potter, Winters.  
Secretary, W. J. Blevins, Jr., Woodland.  
Meeting, *First Tuesday.*

**Yuba-Sutter County Medical Society**  
President, P. E. Thunen, I. O. O. F. Building, Marysville.  
Secretary, Leon M. Swift, I. O. O. F. Building, Marysville.  
Meeting, *First Tuesday.*

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I hope that here in America more and more the ideal of the well-trained and vigorous body will be maintained neck and neck with that of the well-trained and vigorous mind, as the two coequal halves of the higher education for men and women alike. The strength of the British Empire lies in the strength of character of the individual Englishman taken all alone by himself. And that strength, I am persuaded, is perennially nourished and kept up by nothing so much as by the national worship, in which all classes meet, of athletic outdoor life and sport.—William James (1890).

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<b>Department of Public Health of the State of California</b> San Francisco—State Office Building, McAllister and Larkin streets, UNDERHILL 8700. Sacramento—State Office Building, Tenth and L streets, CAPITAL 2800. Los Angeles—State Office Building, 217 West First Street, MADISON 1281.	<b>Board of Medical Examiners of the State of California</b> San Francisco, Room 214, 515 Van Ness Avenue. Los Angeles, 906 State Building. Sacramento, 420 State Office Building. President, William R. Molony, Sr., Los Angeles. Secretary, C. B. Pinkham, Room 214, 515 Van Ness Avenue, San Francisco.	<b>The Public Health League of California</b> Executive Secretary, Ben H. Read, San Francisco office, 244 Kearny Street, phone SUTTER 8470. Los Angeles office, Room 563, 1151 South Broadway, phone PROSPECT 5711.

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\*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

Silver Picrate is a crystalline compound of silver in definite chemical combination with picric acid. Dosage form for use in Anterior Urethritis: Wyeth's Silver Picrate Crystals used in an aqueous solution of 0.5 percent.

*Supplied at all pharmacies in vials of 2 grams*

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**Condemns Efforts to Promote Indiscreet Use of Vitamins.**—"Advertising campaigns and other efforts to promote the indiscreet use of expensive polyvitamin mixtures are unfortunate because the 'educational' program is not based on sound principles of nutrition or medicine," the Coöperative Committee on Vitamins, representing the American Medical Association's Councils on Pharmacy and Chemistry and on Foods, declares in a report on the status of certain questions concerning vitamins.

"The use of vitamin mixtures by the public," the report continues, "is no assurance of 'good health'; their daily use is no guarantee that all of the vitamins which a person must secure will be provided."

The report points out that it represents the Council's opinions on vitamins as of July, 1939. It continues:

"Although considerable evidence bearing on the subject has accumulated the requirements for vitamins A, B<sub>1</sub>, C, and D for either infants or adults have not been established except within rather wide limits. Apparently there is no reason why a properly selected diet should not afford an adequate supply of the requisite vitamins. Furthermore, with the exception of pellagra and a possible vitamin B<sub>1</sub> deficiency there is no evidence of a noteworthy prevalence in this country of conditions in adults that might properly be ascribed to a lack of one or more vitamins. However, under circumstances bringing about a highly restricted dietary regimen and leading to 'one-sided' diets a relative

shortage of some of the vitamins at times arises. In many such instances the situation can be properly corrected by prescription of appropriate foods. Occasionally, and particularly with infants, a corrective result may be more effectively and more speedily secured by the administration of the vitamin itself.

"The Council on Pharmacy and Chemistry considered the matter of mixed vitamin treatment and decided that for the present there seems to be no more logical basis for including all or a number of vitamins in one preparation than there is for combining a number of other known dietary essentials in any one pharmaceutical product.

"It is generally agreed that the first symptom, or at least one of the first clinical symptoms of vitamin A deficiency, is night blindness, or nyctalopia. For this type of night blindness vitamin A is a specific. Cases of nyctalopia exist which do not respond to treatment with vitamin A. These may be due to congenital defects or to other diseases than those caused by lack of vitamin A. In view of present knowledge, the claim is not acceptable that the administration of vitamin A to drivers of automobiles will diminish the chance of accident from driving at night.

"Present indications are that vitamin A is an aid toward the establishing of resistance of the body to infections in general only when there has been a decrease of body reserves of the vitamin and the ingestion of vitamin A is

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THE JOURNAL of the California State Medical Association and the Coöperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital, or we will refer your request to the proper department of the A. M. A. for reply.

We invite and urge you to use this Service. It is absolutely free to every member of the California Medical Association. The Coöperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in CALIFORNIA AND WESTERN MEDICINE, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This A. M. A. Service Bureau will give you the information. Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to write direct to the Coöperative Medical Advertising Bureau, 535 N. Dearborn Street, Chicago, Illinois. CALIFORNIA AND WESTERN MEDICINE and the A. M. A. Service Bureau desire to serve you.

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Course for

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**OPHTHALMOLOGY**—Two Weeks Course starting April 22, 1940. Informal Course every week.

**CYSTOSCOPY**—Ten Day Practical Course rotary every two weeks. One Month and Two Weeks Courses in Urology every two weeks.

**ROENTGENOLOGY**—Special Courses X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

*General, Intensive, and Special Courses in all branches of Medicine, Surgery and the Specialties.*

### TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore Street, Chicago, Ill.

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inadequate. It has not been shown to be specific in the prevention of colds, influenza and such infections, nor has it been demonstrated that ingestion of vitamin A far in excess of that necessary for normal body function and readily obtained from a properly selected diet is an aid in preventing various types of infections.

"The present status of research on the clinical use of thiamin (B<sub>1</sub>) for specific diseases other than beriberi and for infant feeding, is such that definite claims for therapeutic value in relation to such diseases cannot be recognized.

"Available evidence does not warrant the use of nicotinic acid, riboflavin or vitamin B<sub>6</sub> for prophylactic purposes or the suggestion that these substances be employed as a supplement to the ordinary diet.

"Ascorbic acid (vitamin C) is acceptable for the correction and prevention of scurvy. This effect has been

established experimentally and by clinical investigation. Definite claims for the therapeutic value of ascorbic acid should be permitted only in relation to scurvy until further clinical or experimental evidence has substantiated its usefulness in other states.

"Vitamin D is recognized as a specific in the treatment of infantile rickets, spasmophilia (infantile tetany) and osteomalacia (softening of the bones), diseases which are manifestations of abnormal calcium and phosphorus metabolism. Vitamin D is valuable in the prevention as well as in the curative treatment of these diseases.

"The idea of fortifying foods with dietary essentials is not new, but had its beginning with the introduction of iodized salt. Later the question of the fortification of foods with vitamin D was brought up when the possibility of irradiation with ultraviolet or the addition of fish liver oil concentrates was developed commercially and the need

(Continued on Next Page)



## HOSPITALS AND SANATORIUMS

The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

<b>ALEXANDER SANITARIUM</b> Nervous and Mental Diseases Belmont, California	<b>COMPTON SANATORIUM AND LAS CAMPANAS HOSPITAL</b> Neuropsychiatric and General Compton, California	<b>POTTENGER SANATORIUM AND CLINIC</b> For the Treatment of Tuberculosis Monrovia, California
<b>ALUM ROCK SANATORIUM</b> For Treatment of Diseases of the Chest San Jose, California	<b>FRANKLIN HOSPITAL</b> Limited General Hospital Fourteenth and Noe Streets, San Francisco	<b>PARK SANITARIUM</b> Mental and Nervous Alcoholic and Drug Addictions 1500 Page Street, San Francisco, California
<b>CALIFORNIA SANITARIUM</b> For Treatment of Tuberculosis Belmont, California	<b>FRENCH HOSPITAL</b> General Hospital Geary at Fifth Avenue, San Francisco	<b>SAINT FRANCIS HOSPITAL</b> Limited General Hospital Bush and Hyde Streets, San Francisco
<b>CANYON SANATORIUM</b> For Treatment of Tuberculosis Redwood City, California	<b>GREENS' EYE HOSPITAL</b> Consultation, Diagnosis and Treatment of Diseases of the Eye Bush and Octavia Streets, San Francisco	<b>ST. LUKE'S HOSPITAL</b> Limited General Hospital 27th and Valencia Streets, San Francisco
<b>COLFAX SCHOOL FOR THE TUBERCULOUS</b> For the Treatment of Tuberculosis Colfax, California	<b>LAS ENCINAS SANITARIUM</b> Nervous and General Diseases Las Encinas, Pasadena, California	<b>ST. MARY'S HOSPITAL</b> General Hospital 2200 Hayes Street, San Francisco
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Fatigue states, neuroses, and selected mental cases.

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*Psychiatry*



She's helping others to health! And you can too . . . if you resolve right now to mail no letter—send no package—unless it is decorated with the Christmas symbol that saves lives.

Since 1907, the annual sale of Christmas Seals has helped to support the campaign to eradicate tuberculosis in the United States.

During these years of concentrated effort, the death rate from tuberculosis has been cut three-quarters! Yet, tuberculosis still kills more people between the ages of 15 and 45 than any other disease! No home is safe from tuberculosis until all homes are safe.

The National, State and Local Tuberculosis Associations in the United States



**BUY  
CHRISTMAS  
SEALS**

(Continued from Preceding Page)

for vitamin D in the prophylaxis of rickets was made evident. On the basis of evidence available, the Council on Foods decided that of the common foods only milk should be accepted when fortified with vitamin D. Other items such as chewing gum, beer, cake flour, candy, ice cream, and sausage represent specific instances of indiscriminate fortification not recognized by the Council as being in the interest of public health.

"There is evidence that in certain parts of the country there is, in general, a low intake of some members of the vitamin B complex, particularly nicotinic acid and riboflavin. It is not established that marked deficiency of vitamin A and vitamin C in the diet occurs, but it is considered that the optimal diet requires more vitamin A and vitamin C than the average diet provides.

"The fortification of foods with vitamins (or minerals) should not be viewed as a substitute for educational programs. Rather it should be considered that fortified foods simply afford an additional source of important dietary essentials needed for the attainment of optimal nutrition.

"It is important to keep the rules for dietary programs as simple as possible. If a great variety of vitamin D fortified foods is offered, for example, to the public, there is quite likely to be confusion in the mind of the mother trying to give her children the advantages of the modern knowledge of nutrition. This is an additional reason for recognition of milk alone of ordinary foods for fortification with vitamin D.

"Dietary deficiencies, while not limited to any group, are most likely to appear among people with low incomes. Any campaign for the nutritional improvement of foods should give careful consideration to the costs involved, because a higher cost of the final product may defeat the purpose of fortification."



## PROLONGED EFFECT • PROLONGED RELIEF

Adrenalin in Oil facilitates treatment of chronic asthma. It is also valuable in the management of other conditions in which relief—with a minimal number of injections—is needed.

The effect of an intramuscular injection of Adrenalin in Oil (0.5 to 1.5 cc.) usually lasts for 8 to 12 hours. This produces amelioration of symptoms for a corresponding time in chronic asthma, urticaria, serum disease, and angio-neurotic edema.

Each cubic centimeter contains 2 milligrams of basic Adrenalin suspended in sterile peanut oil. The oil coats particulate material, delays absorption, and thereby increases duration of action.

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The word "Adrenalin" identifies the active principle (Epinephrine) of Suprarenal Glands, manufactured by Parke, Davis & Company. Adrenalin in Oil is available at drug stores in 1-cc. ampoules, boxes of 12, 25, and 100.

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*The World's Largest Makers of Pharmaceutical and Biological Products*



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Rates for these insertions are \$4 for fifty words or less; additional words 5 cents each.

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**LOCATION WANTED — LICENSED REFRACTIONIST.** University of California graduate. Familiar with dispensing. San Francisco Bay region. Address, Box 1200, c/o California and Western Medicine, 450 Sutter Street, San Francisco, California.

**WANTED — DERMATOLOGIST DESIRES ASSISTANT.** ship, partnership or association with established dermatologist, ethical group connection or locum tenens; 2½ years' excellent full-time course training; also well trained in allergy, mycology and working with psycho-neurotics. California license. Address, Box 1210, c/o California and Western Medicine, 450 Sutter Street, San Francisco.

**NEW LOCATION WANTED—PHYSICIAN, AGE 40, NA-** tive, after ten years in rural general practice, which included about fifty major abdominal surgical cases yearly, now wants a permanent city location. Will pay for information that results in ready income. May invest in something strictly ethical. Address, Box 1220, c/o California and Western Medicine, 450 Sutter Street, San Francisco, California.

**FOR SALE — TEN-BED HOSPITAL, NOW OPERATING** and fully equipped for general work. Two capable nurses who understand rural psychology, will profit a few hundred dollars monthly from an active management of this much needed institution in an exclusive territory. Patients have come from lumber mill, cannery, ranches, tourist camps and highway accidents, also county dependents. Minimum of three thousand dollars to handle, rest monthly. Please don't answer unless you have the training and cash. Address, Box 1240, c/o California and Western Medicine, 450 Sutter Street, San Francisco.

**Survey of World Trade in Surgical and Dental Goods Published.**—The first comprehensive and detailed study of general health conditions, the promotion and protection of public health by private and governmental organizations, and an analysis of the trade in, and markets for, dental and surgical goods was recently made public by the Specialties Division of the Bureau of Foreign and Domestic Commerce, Department of Commerce.

The survey covers all important countries of the world, with the exception of Japan, China, and Spain. A special bulletin has been prepared covering Japan. Information for China and Spain will be collected as soon as general

economic conditions in those countries return to a more normal trend.

The American dental and medical professions, in coöperation with manufacturers, are making outstanding progress in the development and improvement of instruments and equipment for use in protecting the public health and in treating the sick, and the purpose of this report covering the survey is to render all possible assistance to American manufacturers and exporters of dental and surgical goods in promoting the sales of their products abroad. It is believed that the report covers most of the important questions occurring from time to time in this export market field.

The United States total exports of dental and surgical goods for the first eight months of 1939 were valued at \$3,777,051, compared with \$3,530,332 for the corresponding period of 1938. Dental goods exported in this period recorded an increase of approximately 8.7 per cent, while surgical goods decreased 3.7 per cent. The United States total exports of these goods in 1938 showed a decrease of 3.5 per cent as compared with 1937, the decrease being due, primarily, to a decrease in dental goods in 1938.

Copies of the report, Trade Promotion Series No. 204, World Trade in Dental and Surgical Goods, may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., or through any of the district offices of the Bureau of Foreign and Domestic Commerce located in commercial centers throughout the country, at 25 cents per copy.

**Adverse social factors** have significance in medical care chiefly because of their power to disable. Deprivations, strains, and dissatisfactions have physiologic effects, such as depletion of bodily substance, fatigue, and emotional tension, which are of special importance in aggravating disability already started by organic disease. Medical care can be more economical when discovery and control of adverse social factors are instituted. This is more important in the case of chronic disease, such as tuberculosis.—*Social Compotent in Medical Care*, J. Thornton. Columbia University Press, 1938.

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## BOOK REVIEWS

### BOOKS RECEIVED

**The Vitamins.** A Symposium arranged under the Auspices of the Council on Pharmacy and Chemistry and the Council on Foods of the American Medical Association. Cloth. Pp. 637. Chicago: American Medical Association, 1939.

**Fractures.** By Paul B. Magnuson, M. D., F. A. C. S., Associate Professor of Surgery, Northwestern University Medical School, Attending Surgeon, Passavant Memorial Hospital and Wesley Memorial Hospital, Chicago. Third Edition, Revised and Enlarged. Cloth. Pp. 511, with 317 illustrations. Price, \$5. Philadelphia: J. B. Lippincott Company, 1939.

**Health in Handcuffs.** The National Health Crisis and What Can Be Done. By John A. Kingsbury. Paper. Pp. 210. Price, 75 cents. New York: Modern Age Books, Inc., 1939.

**Synopsis of Pediatrics.** By John Zahorsky, A. B., M. D., F. A. C. P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine, and Pediatrician-in-Chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics. Assisted by T. S. Zahorsky, B. S., M. D., Instructor in Pediatrics, St. Louis University School of Medicine, and Assistant Pediatrician to the St. Mary's Group of Hospitals. Third Edition. Cloth. Pp. 430, illustrated. Price, \$4. St. Louis: The C. V. Mosby Company, 1939.

**Textbook of Nervous Diseases.** By Robert Bing, Professor of Neurology, University of Basel, Switzerland. Translated and Enlarged by Webb Haymaker, Assistant Clinical Professor of Neurology and Lecturer in Neuro-Anatomy, University of California. From the Fifth German Edition. Cloth. Pp. 838, with 207 illustrations including nine in color. Price, \$10. St. Louis: The C. V. Mosby Company, 1939.

**Psychobiology and Psychiatry.** A Textbook of Normal and Abnormal Human Behavior. By Wendell Muncie, M. D., Associate Professor of Psychiatry, Johns Hopkins University; Assistant Psychiatrist, Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital. With a Foreword by Adolf Meyer, M. D., LL. D., ScD., Henry Phipps Professor of Psychiatry and Director of the Department of Psychiatry, Johns Hopkins University. Cloth. Pp. 739, with 69 illustrations. Price, \$8. St. Louis: The C. V. Mosby Company, 1939.

**Death Loses a Pair of Wings.** The Epic of William Gorgas and the Conquest of Yellow Fever. A Novel in Cadence. By Robin Lampson, Author of "Laughter Out of the Ground." Cloth. Pp. 518. Price, \$3. New York: Charles Scribner's Sons, 1939.

**Injuries of the Nervous System Including Poisonings.** By Otto Marburg, M. D., Clinical Professor of Neurology, Columbia University. Research Neuropathologist, Montefiore Hospital, New York. Former Director of Neurologisches Institut der Universität Wien, and Max Helfand, M. D., Assistant Clinical Professor of Neurology and Psychiatry, Columbia University. Chief of Nerve Clinic, Post-Graduate Hospital, New York. Associate Attending Neurologist and Psychiatrist, Welfare Hospital, New York. Attending Neurologist and Psychiatrist, Department of Correction, New York. Cloth. Pp. 213. Price, \$3. New York: Veritas Press, 1939.

**Psychopathia Sexualis.** A Medico-Forensic Study. By Richard Von Krafft-Ebing, M. D., Professor of Psychiatry

(Continued on Next Page)



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### BOOKS RECEIVED

(Continued from Preceding Page)

and Nervous Diseases, University of Vienna. Only Authorized English Adaptation of the Last German Edition Revised by Krafft-Ebing. With Introduction and Supplement by Victor Robinson, M. D., Professor of History of Medicine, Temple University School of Medicine. Cloth. Pp. 626. Price, \$3. New York: Pioneer Publications, Inc., 1939.

**The Dysenteric Disorders.** The Diagnosis and Treatment of Dysentery, Sprue, Colitis and other Diarrheas in General Practice. By Philip Manson-Bahr, C.M.G., D.S.O., M.D., F. R. C. P., Senior Physician to the Hospital for Tropical Diseases, London; Director, Division of Clinical Tropical Medicine, London School of Hygiene and Tropical Medicine; Consulting Physician to the Colonial Office and Crown Agents for the Colonies. With an Appendix by W. John Muggleton, M. S. M., Technical Assistant. Cloth. Pp. 613, with 9 color, and 14 black and white plates, and 106 illustrations in the Text. Price, \$8. Baltimore: The Williams & Wilkins Company, 1939.

**Obstetrical Manikin Practice.** By Lyle G. McNeile, M. D., Professor of Obstetrics and Gynecology, University of Southern California School of Medicine; Senior Attending Obstetrician, Los Angeles County General Hospital; Director, Los Angeles Maternity Service. Cloth. Pp. 111. Price, \$2. Baltimore: The Williams & Wilkins Company, 1939.

**Obstetrical Practice.** By Alfred C. Beck, M. D., Professor of Obstetrics and Gynecology, Long Island College of Medicine; Obstetrician and Gynecologist-in-Chief, Long Island College Hospital, Brooklyn. Second Edition. Cloth. Pp. 858, with more than one thousand illustrations. Price, \$7. Baltimore: The Williams & Wilkins Company, 1939.

**United States Naval Medical Bulletin.** For the Information of the Medical Department of the Navy. Division of



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Publications, The Bureau of Medicine and Surgery. Vol. XXXVII, No. 4, October, 1939. Paper. Pp. 189. Price, 25 cents. Washington: Government Printing Office, 1939.

**A Survey of Hospital Services and Finances in the Philadelphia Area.** Based on Data Collected from 67 Philadelphia Hospitals for the Year 1937. Paper. Pp. 59. Price, \$1. Sponsored by the Hospital Council of Philadelphia.

### BOOK REVIEWS

**Otolaryngology in General Practice.** By Lyman G. Richards, M.D., Fellow in Otolaryngology, Courses for Graduates, and Assistant in Surgery, Harvard Medical School. Associate Professor of Otolaryngology, Tufts Medical School. Research Associate in Otolaryngology, Children's Hospital. Otolaryngological Surgeon, Peter Bent Brigham Hospital. First Edition. Cloth. Price, \$6. Pp. 331, illustrated. New York: The Macmillan Company, 1939.

An excellently organized, well prepared and written work, correctly titled; not a mere abridgment. Usefully indexed, with significant chapter titles, such as "Pain in the Ear," "Headache," etc. Clear and complete descriptions of technique in diagnosis and therapy, well illustrated with drawings prepared for the text, not copied from some atlas, are outstandingly good. Particularly fine are chapters on otitis media and respiratory obstruction, upon which the author is a leading authority. The discussions of acute nasal and pharyngeal infections do not, unfortunately, equal the rest in completeness, especially on treatment, failing in particular to give any technique for proper use of ephedrin. The author seems more impressed by recent trends in evaluating tonsillectomy and the dependability of theories of allergy than is the reviewer. Prescriptions offered seem needlessly complex. The book is up to date, and will take the general practitioner far, but never beyond the author's excellent dictum, "as soon as the patient" is "no longer making progress," his "duty is to seek aid."—Roy F. Nelson.

(Continued on Page 18)

## Sulfapyridine therapy in pneumonia—

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## SULFAPYRIDINE

THE USE OF SULFAPYRIDINE in the treatment of pneumococcal pneumonias is now considered fundamental.

Authorities are agreed that sulfapyridine should be employed in all cases except in the instance of the rare individual in whom the administration of the drug produces toxic manifestations of sufficient importance to prohibit its use.

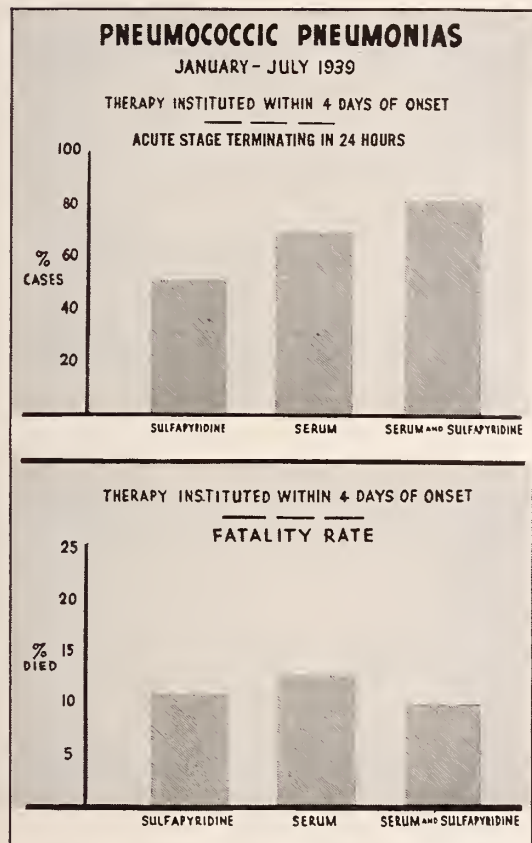
LONG and WOOD\* reported a fatality rate of 7.2 per cent. in 139 adults treated at the Johns Hopkins Hospital. The authors attributed this low death rate to the use of sulfapyridine, antipneumococcal serum, and a combination of serum and sulfapyridine. Investigators are now uniformly reporting lower fatality rates than were before thought attainable.

Toxic manifestations of the drug are similar to those described in the course of sulfanilamide therapy—central nervous system disturbances, drug rashes, drug fever, and disturbances in the red and white blood cells. Impairment of renal function is one of the most important complications.

Obtain sputum and blood cultures for bacteriologic diagnosis as a guide in treatment and aid in prognosis.

Administer sulfapyridine in adequate dosage to all cases.

Observe precautions against toxic effects of the drug by making daily urine examination, red and white blood cell count, and hemoglobin determination.



\*LONG, PERRIN H. and WOOD, W. BARRY, JR.: Ann. Int. Med., Vol. 13, No. 3, Sept., 1939, Page 487.

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### BOOK REVIEWS

(Continued from Page 16)

**A Textbook of Bacteriology.** The Application of Bacteriology and Immunology to the Etiology, Diagnosis, Specific Therapy and Prevention of Infectious Diseases for Students and Practitioners of Medicine and Public Health. By Hans Zinsser, M. D., Consulting Bacteriologist to the Peter Bent Brigham Hospital and Children's Hospital, Boston, and Stanhope Bayne-Jones, M. D., Professor of Bacteriology, and Dean, Yale University Medical School, Master of Trumbull College, Yale University, New Haven, Connecticut. Eighth Edition, Revised and Reset. Cloth. Pp. 990. Price, \$8. D. Appleton-Century Company, Incorporated, New York, 1939.

The new edition of Zinsser and Bayne-Jones is, as usual, especially well adapted to the needs of the practicing physician, giving complete but concise bacteriology. Highly

technical, theoretical details are largely excluded, avoiding, however, superficiality.

The new edition retains much the same scope as the previous editions, with the addition of material covering the increased knowledge of serological grouping of streptococcus, ultramicroscopic virus, vitamins, bacterial chemotherapy with sulfanilamide, etc.

The section on protozoology has been omitted, and obsolete material excluded, making a more compact edition. The new Zinsser will be a valuable addition to any medical library.—Paul Michael.

**Clinical Laboratory Methods and Diagnosis. A Textbook on Laboratory Procedures with Their Interpretation.**—By R. B. H. Gradwohl, M. D., Director of the Gradwohl Laboratories and Gradwohl School of Laboratory Technique; Formerly Director of Laboratories, St. Louis County Hospital; Pathologist to Christian Hospital; Director, Research Laboratory, St. Louis Metropolitan Police Department, St. Louis, Missouri; Commander, Medical Corps, Fleet, United States Naval Reserve. Second edition. Cloth. Pp. 1,607, with 492 illustrations in the text and 44 color plates. Price, \$12.50. St. Louis: The C. V. Mosby Company, 1938.

This remarkably complete work on laboratory procedure contains a wealth of accurate data on all phases of laboratory medicine. The techniques described are not limited to those favored by the author, but include many acceptable methods, all of which are set down in great detail. Discussions of the relative values of various tests are particularly enlightening, and references to the literature

are numerous. Clinical interpretations of laboratory findings are helpful, as are the normal findings which are carefully listed in most instances. Good illustrations are plentiful. A unique chapter, not commonly found in works of this type, is that on the laboratory's place in the detection of crime. The work is full and up to date, and contains much data that is not found in other books on this subject. The amount of material would certainly justify a two-volume work.

**The Vitamins.** A Symposium arranged under the Auspices of the Council on Pharmacy and Chemistry and the Council on Foods of the American Medical Association. Imitation leather. Price, \$1.50, postpaid. Pp. 637. Chicago: American Medical Association, 1939.

So much information has become available about the vitamins, that it is difficult even for experts to keep up with the literature. The present volume is a welcome

(Continued on Page 20)

# Where WINTER Strikes



**T**HE management of cold weather infections of the upper respiratory tract is a major winter problem in these latitudes.

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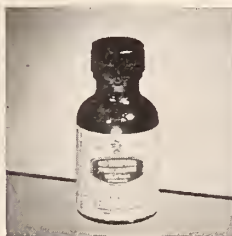
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## BOOK REVIEWS

(Continued from Page 18)

compendium of authoritative information about these accessory food factors. There are discussions of the chemistry, physiology, pathology, pharmacology and therapeutics, methods of assay, food sources and human requirements of each of the important vitamins. The volume is composed of thirty-one chapters written by experts, and is published under the auspices of the Council on Pharmacy and Chemistry and the Council on Foods of the American Medical Association.

This book should prove to be an indispensable volume for the library of every physician.

**Surgical Pathology.** By William Boyd, M. D., LL. D., M. R. C. P. Ed., F. R. C. P. Lond., Dipl. Psych., F. R. S. C., Professor of Pathology, University of Toronto. Fourth Edition, Thoroughly Revised. Cloth. Pp. 886, with 476 illustrations and 15 colored plates. Price, \$10 net. Philadelphia and London: W. B. Saunders Company, 1938.

The fourth edition of this well known text has the same form as previous editions, stressing diseases of the abdomen and pelvic organs, the bones and joints, and such features of pathological changes in other organs as may be treated surgically. For example, empyema is the subject of one chapter, but the lesions of pneumonia are not discussed. The first quarter of the book discusses tumors as a group and reviews general pathological features of tissue injury, inflammation, repair, and vascular changes of importance to the surgeon. The book is well illustrated with practically the same material used in the previous edition. The author's easily readable style is combined with frequent reference to clinical manifestations of disease, making the book more entertaining to the student and practitioner of medicine, though perhaps less valuable as a pathology reference book.

This edition has several small new sections. Regional ileitis, glomangioma, lymphogranuloma venereum, Hashimoto's disease, and several of the less common ovarian tumors are now included. However, there is no discussion

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of a number of lesions which may be encountered by the surgeon, notably diseases of the bronchi, and abscesses and tumors of the lung.—Alvin J. Cox.

**Hypertension and Nephritis.** By Arthur M. Fishberg, M. D., Associate in Medicine, Mount Sinai Hospital, New York City. Fourth Edition. Thoroughly Revised. Cloth. Pp. 779, illustrated with 40 engravings and a colored plate. Price, \$7.50. Philadelphia: Lea & Febiger, 1939.

This is a standard textbook for students interested in a modern concept of nephritis and its closely allied subject, hypertension. The relatively recent work of Goldblatt and his coworkers have made necessary a revision of this work. Emphasis has been placed on simple, important clinical tests. An example is the author's insistence on the great value of the specific gravity as an evidence of renal function. The author's concept of hypertensive encephalopathy as an explanation of many nonuremic cerebral manifestations in hypertensive states is helpful clinically. This is particularly true in his discussion on the toxemias of pregnancy. This book can be fairly said to live up to the expectations of any reader having a general or particular interest in this field.—Philip Corr.

**Artistic Anatomy.** By Walter Farrington Moses. Revised and Enlarged Edition. Cloth. Pp. 59-b. Price, \$3.50. Los Angeles: Borden Publishing Company, 1939.

One is apt to conclude from the title of this book that here is another photographic glorification of American feminine pulchritude. If so, he is mistaken. I do not find a single illustration remotely suggesting such a thing. In fact, the differences between the male and female structure, although stressed graphically, is not given any verbal explanation. To me this is the only weak point in the entire work.

This book is a veritable vade-mecum for the "life" student. If you have the slightest flare for artistic myology and kinesiology, here it is.

Mr. Moses has produced an artistically well-rounded book and Doctor Salvin's introduction will be read and

(Continued on Page 22)



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### BOOK REVIEWS

(Continued from Page 20)

digested with great profit by students in "life" classes. The drawings are anatomically correct. They portray a deep regard for the beauties contained in the otherwise drab and commonplace depiction of plain, ordinary everyday bones and muscles. One is here constantly reminded of the parallelism with the sketches contained in Leonardo De Vinci's notebooks, the father of all "artistic anatomy."—J. R. S.

**A Textbook of Gynecology.** By Arthur Hale Curtis, M. D., Professor and Chairman of the Department of Obstetrics and Gynecology, Northwestern University Medical School; Chief of the Gynecological Service, Passavant Memorial Hospital, Chicago, Illinois. Third edition, Reset. Cloth. Pp. 603, with 318 illustrations. Price, \$7 net. Philadelphia: W. B. Saunders Company, 1938.

The third edition of "A Textbook of Gynecology" by Arthur Hale Curtis presents an entirely rewritten subject matter. By and large, the bulk of the preceding editions has been retained. There are eight new chapters concerned with anatomy, physiology, and the endocrines. The current literature has been carefully studied and appropriate excerpts selected. These are presented combined with the author's large experience.

The chapter on anatomy well deserves enthusiastic comment. The demand for anatomy from a gynecologic viewpoint is admirably met. The study is based on observations made at the time of abdominal and vaginal surgical procedures, also routine vaginal examinations. To this are added many original anatomical dissections from which the splendid drawings are made.

The author's adequate discussion of endocrine disorders is superior. One must admire the common-sense attitude toward therapy. It is clearly brought out that there are few gynecologic conditions which can be satisfactorily treated by the exhibition of the present endocrine preparations.

The 318 illustrations throughout the book of 603 pages are practically all new. By care to details the more common gynecologic operations are excellently drawn and accompa-

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nied by concise descriptions. The care of the patient preoperatively and postoperatively receives well-deserved discussion.

Among other therapeutic measures ably discussed is radiotherapy. Also the use of sulfanilamide in various pelvic disorders.—E. W. Cartwright, M. D.

**Practical Microbiology and Public Health.** For Students of Medicine, Public Health, and General Bacteriology. By William Barnard Sharp, S. M., M. D., Ph. D., Professor of Bacteriology and Preventive Medicine in the Medical Department of the University of Texas; Visiting Bacteriologist of John Sealy Hospital, Galveston; Supervisory Bacteriologist of Galveston Health Department. Cloth. Pp. 485, illustrated. Price, \$4.50. St. Louis: The C. V. Mosby Company, 1938.

This handbook fulfills admirably the purpose for which it is designed—to afford the student of public health a working basis for the organization, interpretation and recording of data from the laboratory and field. Intensely practical in the arrangement and presentation of the subject matter of so large a scope, the book exhibits a quality of terseness which, when elaborated by appropriate lectures, provides a perfectly rounded course in public health.

The book has the added advantage of an excellent index.—C. V. M.

**Greater Use of Surgery in Tuberculosis Results in Changes in the Hospital.**—Probably the most significant and far-reaching change which has come about in the tuberculosis hospital field is the trend toward surgical treatment of the disease. This has involved changes in design and equipment of the hospital, in the organization of the staff, in provision for nursing of surgical cases and development of closer relations with general hospitals. Wherever the tuberculosis hospital is not prepared to meet the demand for better operating rooms, laboratories and x-ray equipment the facilities of the general hospital must be utilized.—*Hospital Management*, September, 1939.

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### TWENTY-FIVE YEARS AGO

(Continued from Text Page 414)

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1 1 1

*Nevada State Association.*—At its last annual meeting, the Nevada State Medical Association made the CALIFORNIA STATE JOURNAL OF MEDICINE its official publication; and, beginning with the first of the year, the Association is to subscribe for it for each of its members. Elsewhere will be found a list of the officers, minutes of the last meeting, and some Nevada notes. . . .

1 1 1

*American Medical Association Meeting in June: Arrangements Committee.*—Once more, a gentle reminder not to forget that the American Medical Association is to meet in San Francisco in the third week of June, 1915; Monday, the 21st of June the House of Delegates has its opening session, and Tuesday, the 22nd, the regular sessions of the Association begin their work. . . .

Dr. Philip Mills Jones, who is chairman of the Trustees' Committee of Arrangements for the session in San Francisco, has appointed the local Committee of Arrangements as follows: Dr. J. Henry Barbat, Dr. Sol Hyman, Dr. William P. Lucas, Dr. Herbert C. Moffitt, Dr. Emmet Rixford, and Dr. George Somers. This committee has met and elected Doctor Moffitt, as chairman, and Dr. Sol Hyman, secretary. It will appoint all the subcommittees,

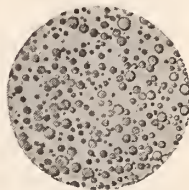
(Continued on Next Page)

## Why "LACTOGEN" is so easy for Infants to Digest

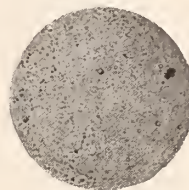
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### TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

and it is urged upon every member of the Society, in San Francisco, to contribute his services if called upon to aid the committee; it will require quite a goodly number of active members to handle the situation properly.

*The Right Spirit and the Right Kind of Help.*—Here (infra) is a letter from an ex-president of the Society that tells its own story. This is the kind of coöperation that counts a whole lot. We have begged men to refer to the JOURNAL; to let us know if they are going to get an automobile; to correspond with advertisers, etc. Doubtless at the present time there are a number of members who will buy automobiles in the course of the next few months. If they would let us know, and let us know what kind of car they had in mind, we could get that car for them without it costing them a dollar more—and we could also get some more advertising for the JOURNAL. It is your own JOURNAL, and by helping it you only help yourself. Can you not see it? Will you not do it? We have a number of new advertisements, in the last few months: Uncle Sam, Battle Creek, Betz (whose advertising copy is carefully gone over in the American Medical Association office), Calso water, and a number of others. Why not look them up in the JOURNAL and see what is offered you? And let the advertiser know! . . .

"I speak of these things because I presume the average member is like myself, he rarely looks at the advertisements unless there is some particular thing that he is looking up for himself, and the average busy practitioner if he wants an instrument, or a new automobile, is liable to go to those sources most convenient for him, and it never occurs to

him to look in the JOURNAL and see how he can help the JOURNAL along. If we could encourage them to look upon the JOURNAL as a clearing house for the medical profession of the state irrespective of the membership, it would help very materially in encouraging those who have the active management of the JOURNAL, if it added to their labors."

*Guard Your Membership!*—While it is true that "crime 46" did not pass and become a law, the very large number of people who voted for it show one of two things—either that a large number of voters think there should be little or no control over the qualifications of those who are to minister to the sick or injured, or that a great many people are ignorant of what they are voting for. The tendency of the times is sociologic unrest; resentment of any sort of control; let the individual do as he pleases. . . .

*Unrest in New York State.*—A circular has been received which was apparently used as a campaign document in New York, as it is unsigned and has nothing to indicate where it comes from or who is responsible for it. It is nevertheless interesting as it shows so clearly that the spirit of unrest, of determination to remove standards of requirements in professional equipment, is as rampant in New York, almost, as it is on the extreme western side of the continent. Also, the quotation from Governor Glynn's remarks, if true, and there is no reason to believe otherwise, is illuminating in the way of showing how some governors look at a high medical standard as protection for the people. The circular is, in part, as follows:

"The attention of physicians is directed to the following:

"Chiropractic, Naturopathic, Osteopathic and Christian Science bills were presented at Albany last year. Two of

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them, which would have broken down every barrier which now prevents the practice of medicine by unqualified persons, were passed.

"It was the courageous vetoes of Governor Glynn which alone saved the medical standards of which New York State has been so proud."

In speaking on this subject before the sanitary officers of the state in September, Governor Glynn said:

"While I am governor, no man will practice medicine in this state by simple hanging out the sign 'healer.' I am opposed to 'heelers' in politics, and I am against 'healers' in medicine, my friends.

"I believe in the preservation of high standards of medical education. If the legislature of this state has one great responsibility it is to preserve the medical standards of the state, and my efforts will always be directed to that same end."

*From an Original Article on "Bone-Splinting in Vertebral Tuberculosis," by Harry M. Sherman, M. D., and George J. McChesney, M. D., San Francisco.*—An innovation in the rather trite treatment of vertebral tuberculosis is entitled to special consideration because of the fact that it is an innovation, for one thing, but chiefly because of the serious character of the diseased condition and the great need of an improvement in our methods of treatment. Up to the time when Hibbs and Albee practically simultaneously promulgated their operations, the treatment of tuberculosis of the bodies of the vertebrae—the most common form of bone tuberculosis in children—was still limited to the old-as-the-disease methods of braces and plaster of paris jackets and recumbency. All of these aimed to provide local rest—the so-called immobilization—and no more, and then the recession of the diseased process and the

supervention of healing was expected to follow with improvement in the general health of the patient. . . .

*From an Original Article on "Primary Sarcoma of the Stomach; Preliminary Report of a Case Treated by Partial Gastrectomy," by Thomas W. Huntington, M. D., San Francisco.*—Frazier states that primary sarcoma of the stomach was first discovered by Bruch, in 1857. Virchow, in 1864, referred to three cases, and Tilger, in 1893, was able to collect only 20 cases. Hesse, in 1912, collected 235 cases of sarcoma of the stomach. Of this series, 160 were primary. His paper is exhaustive, containing much statistical information, and a very complete bibliography. . . .

*From an Original Article on "Infantile and Juvenile Tabes," by Hans Barkan, M. D., San Francisco.*—The adult type of tabes is, if not diagnosed by the neurologist first, often discovered by the ophthalmologist; as the cases afflicted with optic atrophy, if it occurs at all, appear in the vast majority of cases as one of the very earliest signs, we frequently have the opportunity of being the first to suspect a tabes and of confirming the diagnosis by the finding of Argyll-Robertson pupil, lost patellar and Achilles reflexes, and Romberg. The total per cent of tabetics first diagnosed as such in an eye clinic is hard to state accurately, but probably amounts to about 20 per cent. . . .

*From an Original Article on "Feeding in the First Month of Life," by Adelaide Brown, M. D., San Francisco.*—The importance of the human milk supply has received new

(Continued on Next Page)



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## TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

emphasis from the work done in the past two summers with human milk as an adjunct to difficult infant feeding problems, on the Boston Floating Hospital. A daily milk route has been established for collecting human milk by a trained nurse, and it is used in the most critical cases for part of the feedings with far better result than any modifications of cows' milk have given. This study emphasizes the importance of preserving even a partial supply of human milk for the infant. Supplementary feeding is an easy matter in comparison with complete artificial feeding. . . .

*From an Original Article on "Does a Relationship Exist Between Tuberculosis of the Epididymis and Tuberculosis of the Kidney?" by R. L. Rigdon, M. D., San Francisco.*—So far as the urinary organs are concerned, it is certain that the primary point of tubercular infection is the kidney. Opinions still differ widely, however, as to the point of primary attack in the genital apparatus, some maintaining that the prostate is the guilty party, and some that the epididymis should bear the opprobrium. All have been of the opinion that the involvement of one system has no relation to involvement of the other, except that of accident or contiguity. I wish to examine this question a little more closely by inquiring if the lighting up of tuberculosis in one has not a distinct relationship to a similar infection in the other. . . .

*From an Original Article on "Points of Interest in the Technique of Gastro-Enterostomy," by Paul S. Campiche, M. D., San Francisco.*—The present paper is the outcome

of a discussion that took place at the April 7 meeting of the San Francisco County Medical Society. To our astonishment, we heard at that time some eminent physicians take a most pessimistic view of the results of gastric surgery. A distinguished specialist went so far as to say that, owing to the very high mortality, which he placed at 33 per cent plus, he now advises his patients rather to live with their ulcer troubles than to run the risk of an operation. This is a very serious situation indeed, and we thought it would be appropriate to review the latest advances in the technique and, if possible, have here among the surgeons a complete discussion of the subject of gastroenterostomy. . . .

*From an Original Article on "The Mendelian Law and Its Relation to Inherited Conditions of the Eye," by Benjamin F. Church, M. D., Redlands.*—We owe largely our knowledge of the workings of inheritance in hybridization to the unpretentious studies of an Austrian monk, Gregor Mendel, who, although a contemporary of Darwin, was probably unknown to him. For eight years, in the middle of the last century, Mendel carried on original experiments by breeding common peas in the privacy of his cloister garden at Brunn.

As Galileo and others who lived beyond their times, Mendel's interpretation of nature's law was not appreciated or understood until after his death.

### MENDEL'S LAW

Mendel's crossbreeding experiments on peas showed certain numerical relations, which is now known as "Mendel's law," briefly formulated as follows: When parents that are unlike with respect to any character are crossed, the progeny of the first generation will apparently be like

(Continued on Page 28)

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## TWENTY-FIVE YEARS AGO

(Continued from Page 26)

one of the parents with respect to the character in question. The character that expresses the character upon the offspring in this manner is called the dominant. When, however, the hybrid offspring of this first generation are in turn crossed with each other, they will produce a mixed progeny, 25 per cent of which will be like the dominant grandparent, 25 per cent like the other grandparent, and 50 per cent like the parents resembling the dominant grandparent. . . .

As expressed by Bateson, the essence of the Mendelian principle is, first, that in a great measure the properties of organisms are due to the presence of distinct detachable elements, separately transmitted in heredity; and secondly, that the parent cannot pass on to offspring an element which it does not itself possess. Each germ cell, ovum, or sperm may contain, or be devoid, of any of these elements; and since all ordinary animals and plants arise by the union of two germ cells in fertilization, each resulting individual may obviously receive in fertilization similar from both parents, or from neither, in these cases the offspring is "pure" bred for the presence of the character in question or for its absence. But it may be formed by the union of dissimilar germs, one containing the element, the other devoid of it. . . .

*From an Original Article on "Conservative Amputations of the Lower Extremities," by Charles E. Phillips, M. D., Los Angeles.*—A subject upon which volumes have been written is too large to be reviewed in the short space of time at my disposal. Hence I will merely touch upon those things which have been out of the ordinary in my experience covering a period of nearly eight years in the chief

hospitals of the Canal Zone, Panama, comprising one of the greatest accident clinics in the world. . . .

*From the Nevada State Medical Association: "Minutes of the Annual Session, Reno, Nevada, October 13, 1914."*—The eleventh annual meeting of the Nevada State Medical Association was called to order in the Commercial Club Rooms at 10 a. m. by Dr. A. P. Lewis, president. Invocation by the Rev. Samuel Unsworth. . . .

## BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 414)

### News

"Two physicians from Napa State Hospital today are preparing to take over medical directorships of State institutions for the insane, following their appointments late last week by Dr. Aaron J. Rosanoff, Director of State Institutions. Dr. Irving E. Charlesworth, 62, acting director of the local hospital since the death of Director J. M. Scanland, takes over at once at the Napa institution as director, while Dr. Walter Rapaport, 44, staff physician, was named to succeed the former head of Mendocino State Hospital at Ukiah, who resigned. . . ." (*Oakland Tribune*, October 9, 1939.)

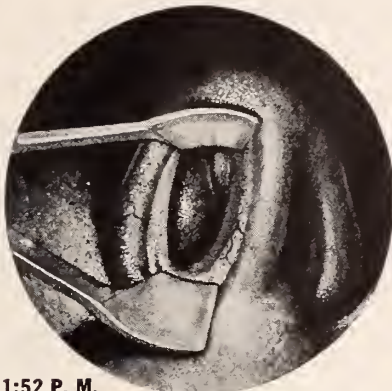
"The Grand Jury last night voted indictment of Dr. Nathan S. Housman, San Francisco physician, on six counts—two of perjury, two of preparing false evidence, and two of offering false evidence. The physician, recently acquitted in Municipal Court on two misdemeanor charges involving narcotic prescriptions, could not be found by

(Continued on Page 30)

# Effective Lasting Shrinkage

*Case History:* F. O'B. Age 23, male, white. Worker in chronic acid plant. Complained chiefly of earache and head stoppage. Observed at Nose and Throat Clinic of a Philadelphia hospital.

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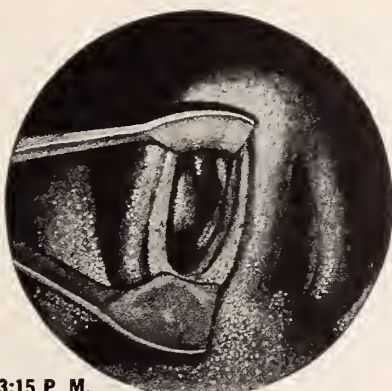


1:52 P. M.  
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2:01 P. M.  
Maximum shrinkage. Inferior and middle turbinates and septum decongested.

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4:00 P. M.  
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#### BOARD OF MEDICAL EXAMINERS

(Continued from Page 28)

subpena servers and did not appear to testify. Assistant District Attorney Harry J. Neubarth said testimony was given to prove Housman perjured himself at his recent jury trial when he said he kept case records showing narcotic prescriptions issued to patients. The falsification charges, according to Neubarth, are based on an allegation that Dr. Housman's case records showing narcotic prescriptions had been copied after start of his trial from records of prescriptions kept at the drug store at which the prescriptions were filled. . . ." (San Francisco Chronicle, November 2, 1939.)

"Arrested by local police Thursday and charged with practicing medicine without a license, Mrs. Ruth A. Sears,

of 836½ South Record Street, Los Angeles, was released on a bail bond of \$500, pending jury trial set for 9:30 a. m., November 8, in police court by Judge R. J. Keller. Mrs. Sears' arrest . . . arose from the death of Mrs. Elizabeth Hoffeld, 32, at her home, 422 North Sierra Vista Avenue, last September 29." (Alhambra Post-Advocate, October 27, 1939.)

"Fake doctor and a bogus retired minister who paid visits to two San Jose residents last week-end became objects of police search yesterday. Stranger, who visited him in his room at a Market Street hotel, Sunday afternoon, representing himself as a doctor, put him to sleep with an anesthetic and took \$60 from his clothes, E. W. Allen reported to police yesterday. . . . Allen, elderly authority on expositions, told officers that the stranger said he was 'Doctor Collins' and that it would be necessary for him to

examine him before Allen could receive a pension check. November 1. When he awoke, some time later, three \$20 bills and 'Doctor Collins' were gone, Allen said. . . ." (San Jose *Mercury-Herald*, October 31, 1939.)

"Charges of practicing medicine without a license face John Barnabas Thornhill . . . as a result of his arrest at his barber shop at 1183 El Camino Real, Menlo Park, late yesterday. Thornhill was arrested on complaint of Mrs. Rose Ricci, wife of Peter Ricci, proprietor of the Menlo Cyclery, according to Thomas P. Hunter, special agent for the State Board of Medical Examiners. She had been treated by Thornhill, Hunter said." (Burlingame *Advance-Star*, October 25, 1939.)

"Suspended from his position as resident physician at San Francisco County Hospital, Dr. Moroni Jameson, 37, Stanford University graduate, and his brother, Thomas, 32, today were in the county jail in Redwood City facing burglary charges. The brothers, who live at 148 Seventh Avenue, North Fair Oaks, just south of Redwood City, were apprehended Saturday night by two San Carlos police officers, allegedly loading stolen materials from the San Carlos Lumber Company, on Old County Road, into their automobile. . . . The officers said that the pair had first parked their car in Redwood City, walked to the lumber company, removed the materials from the building and carried them across the railroad tracks into the grove of trees. Then they walked back to Redwood City, got their car and returned to load their loot into the auto. Doctor Jameson and his brother offered no resistance when arrested. They also admitted, San Carlos police said, theft of 20 sacks of cement from a San Carlos building job several days ago. They also admitted theft of some lumber from a North Fair Oaks construction job several weeks ago. Several sacks of cement and a small amount of lumber were found at the Jameson home. . . . When questioned by Deputy District Attorney Louis B. Dematteis this morning, neither Doctor Jameson nor his brother made any effort to conceal their guilt. . . . In all, the men took 64 items, according to police, including 12 rolls of roofing paper, 10 cans of paint, 4 hammers, 2 dozen paint brushes. . . . They had loaded part of the material when apprehended by the officers. . . . Doctor Jameson told Dematteis he was paid \$75 a month and board at the San Francisco Hospital. . . ." (Redwood City *Tribune*, October 23, 1939.)

"After being found guilty of three out of six counts for asserted violation of the business and professions code, section 2141, the defense of W. H. Neher, local 'cosmic force healer,' will appeal the verdict of 'guilty' handed down Friday night in the Pomona Justice Court. No date has been set for the case in Los Angeles appellate court, because of a crowded calendar. It is expected to be soon, however. Judge Thomas B. Reed of West Covina, sitting for Judge Will G. Fields, who is on vacation, sentenced Neher to pay a fine of \$600 or to spend forty days in the county jail, at a hearing Wednesday afternoon. Neher elected to pay the fine—\$200 on three counts on which he was convicted. A jury found him guilty of practicing medicine without a license. . . . The jury deliberated four hours before giving a verdict, which was returned at 11:20 p. m. Friday. The verdict came as a climax of a trial at which the Rev. Joe Jeffers, who was recently acquitted on a morals charge in Los Angeles, testified on Neher's behalf, stating that healing through faith and prayer could be accomplished with a machine such as Neher's. . . . When testifying in his own behalf, Neher stated that he was not

(Continued in Back Advertising Section, Page 34)



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# CALIFORNIA AND WESTERN MEDICINE

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EDITOR . . . . . GEORGE H. KRESS

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BUSINESS MANAGER . . . . . GEORGE H. KRESS

Advertising Representative for Northern California  
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*Contributions—Length of Articles; Extra Costs.*—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

*Leaflet Regarding Rules of Publication.*—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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## EDITORIALS†

### THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION\*

The American Medical Association advocates:

1. The establishment of an agency of Federal Government, under which shall be coordinated and administered all medical and health functions of the Federal Government, exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick, on proof of such need.

3. The principle, that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services, with local determination of needs and local control of administration.

5. The extension of medical care for the indigent, and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

### CHIROPRACTIC INITIATIVE DEFEATED BY CALIFORNIA ELECTORATE

**Initiative Proposition No. 2 Defeated, as Predicted.**—In our November comment, we expressed the opinion that the advocated revision of the existing California Chiropractic Practice Act, as provided in Initiative Proposition No. 2 on the November 7 election ballot, would not command from the citizens of the State sufficient votes to insure its enactment. In confirmation of this prediction, the election returns, as given in press dis-

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

\* See also in this issue, on pages 358, 360 and 394.



patches of November 8 and the days following, revealed the gratifying news that the attempt of a section of the chiropractic group to extend the domain of that cult's practice into the realm of medicine and surgery had not only been unsuccessful, but had been overwhelmingly rejected; the almost final vote in 10,939 precincts out of a total of 11,193 registering 1,852,902 ballots against the chiropractic initiative, with only 785,269 in its favor.\* This result was the more satisfactory, because obtained in spite of an affiliation with the proponents of the "Ham and Eggs" phantasy and the expenditure of very considerable funds secured by a chiropractic group to further a publicity campaign designed to promote acceptance of the measure.

\* \* \*

**Verdict of the Voters Most Gratifying.**—It is thus heartening to know that the citizens of California refused to be misled by the specious statements put forth by both those who sponsored the drafting of the 1939 chiropractic initiative and those who actively supervised the campaign to secure its approval by the electorate. The voters' rejection of the project depended upon a number of factors, among which may be mentioned the following:

1. The initial blunder committed by the Lieutenant-Governor (in whom is vested the power to designate the citizens who compose the "for and against arguments" concerning each initiative, which are distributed with the sample ballots), in selecting, for the writing of the reasons why the initiative should not be enacted, two women who (as reported from press items, on page 197 of the September issue of CALIFORNIA AND WESTERN MEDICINE) were later found to have been "guilty of collusion."† Publicity of the above facts attracted the attention of many voters and, no doubt, was responsible for a large number of votes cast against the measure.

2. The Lieutenant-Governor then appointed three representatives of other chiropractic organizations, who were not in favor of the proposed initiative, to write the opposing arguments, and the "divided house" so created also sowed the seeds of doubt in the minds of many wielders of the ballot.

3. From various directions, too, the editors of California newspapers were informed concerning the real significance and scope of the proposed initiative; and it bespeaks hope for popular government and an independent press that editorial support against Proposition No. 2 was so generously given throughout the entire State. The

\* Vote on Initiative Propositions.—Associated Press wires, according to the San Francisco *Chronicle* of November 10—almost 99 per cent complete—showed the following tabulations:

Proposition	Precincts Reporting	Yes	No
No. 1—"Ham and Eggs".....	10,938	975,410	1,883,484
No. 2—Chiropractic Bill.....	10,931	785,269	1,852,902
No. 3—Shelley Loan Act.....	10,931	1,814,133	727,726

† The San Francisco *Examiner* bureau dispatch from Sacramento, printed the following day, August 23, stated: "An investigation by the [California] Bureau of Identification indicated both pro and con arguments had been written on the same type of stationery, and by the same typewriter."

medical profession, naturally, and all who believe in conservation of the public health, are deeply appreciative of the aid so rendered.

4. Last to be considered, but by no means least, was the efficient service by the representatives of scientific medicine themselves. Here may be mentioned, in particular, the work of the California Public Health League, the activities of the Public Relations Counsel of the California Medical Association Committee on Public Health Education, and the support from the Woman's Auxiliaries and allied agencies.

\* \* \*

**Results Again Demonstrate the Wide Influence of the Medical Profession.**—It has been frequently stated that members of the medical profession, on matters of proper public health and welfare, are in position in all probability to exercise a wider and more powerful influence on public opinion than any other group of citizens; and such is undoubtedly the fact. The time was when the utilization of this influence—which revolves around the integrity and standing of individual physicians in their respective communities—was not well supervised; but, in recent years, the repeated attacks against scientific medicine and public health standards have taught the profession how best to avail itself of its own power and prestige. As an example, in the recent work against the Chiropractic Initiative, the legitimate machinery that was set in motion functioned quietly but most efficiently; as the better than 2-to-1 rejection of Proposition 2 by the California citizenry amply indicates.

Now that endeavors of the proponents of the cultist proposition have met with such merited disapproval by the electorate, it is possible to perceive that those efforts may nevertheless result in ultimate good, in deterring other cultist groups from resorting to similar initiative appeals. In these troublous times such disapproval also permits medical profession members to have confidence for victory in battles for the right still before them, in the knowledge that coördinated and careful planning should be able to combat antagonists who sponsor proposed federal, state, or local legislation that is neither sound nor for the ultimate welfare of the people.

## MEDICAL DEFENSE

**Malpractice Suit Evil Does Not Lessen.**—A matter of concern in medical practice is that having to do with malpractice suits which, because of their frequency and often deplorable results, make the subject from various angles one of increasing importance. To begin, no physician can tell when such malpractice lightning will strike him, owing to the fact that the unfortunate combination of a dissatisfied patient, a colleague unwise in his conversation, and certain types of attorneys-at-law cannot be foreseen or prevented. To this causative group can be added the psychologic reactions of the many current-day American juries, whose verdicts are often tinged with emotionalism and who so often grant monetary damages, often, without regard to facts or law.

**Many Medical Defense Insurance Companies Have Retired from the Field.**—The problem has also come home in intimate fashion to insurance companies providing medical defense, because those organizations, like the physicians themselves, have been unable to estimate with accuracy a sound actuarial background to cover the expenses involved in malpractice cases. As a consequence, well known companies, not only in California but in other commonwealths, have one by one retired from the field of this type of protection insurance. The companies that continue to operate affirm they have been obliged to increase their premium rates in order to build up reserves sufficiently large to enable them to meet adverse verdicts from juries. Malpractice suits, therefore, have an intimate relationship to both the reputation of physicians and also to the purses of medical practitioners, a single item in a newspaper concerning a suit that has been filed being certainly a most unhappy experience for any physician. The recurrent notices of premiums due for medical defense, with the lesser coverage granted and the other uncertainties involved, make the matter of malpractice insurance one of frequent conversations by members of the medical profession; and existing conditions promote this deplorable restlessness and doubt on what is best to do under the existing circumstances.

\* \* \*

**Study of Medical Defense Is Being Made.**—At the present time the topic is undergoing study by the California Medical Association Committee on Public Relations, its members hoping to find ways and means of reducing the number of malpractice suits having no real merit in fact, and also of indirectly aiding insurance carriers in their work under conditions more advantageous, both to themselves and to the physicians to whom they offer defense coverage. At the same time, other phases of the problem will be investigated by the committee; and later it is hoped to acquaint the component county societies with the results of the committee's investigations. Meanwhile suggestions will be cordially welcomed, and members of the Association are invited to communicate with the California Medical Association Committee on Public Relations, in care of the Association Secretary at headquarters in San Francisco.

#### CALIFORNIA MEDICAL ASSOCIATION COMMITTEE ON PUBLIC HEALTH EDUCATION

**New Problems Create Additional Expenditures.**—In former days, financial needs of the Association were usually met by an increase in annual dues, but several years ago, at a time when fewer problems demanding large outlays of funds for their solution were confronting the profession, these annual dues were lowered. Later, as unexpected expenditures, due to activities such as the California Medical-Economic Survey and the battle against the antivivisection initiative, came to the front, the treasury was found so depleted that moneys for any extensive campaign of education

in matters of public health and scientific medicine were not available.

At Del Monte, in May, 1939, the Council recommended an increase in the annual dues, but the House of Delegates deemed it wise to decide that the needed funds should be raised by a special assessment, some of the proposed resolutions advocating not one, but a series of assessments.

\* \* \*

**Special Assessment of the House of Delegates.**—The Council's formal announcement of the resolution adopted by the House of Delegates did not meet with an enthusiastic reception due, perhaps in good part, to certain inclusions in the resolution adopted by the House of Delegates that were not in harmony with the Association's constitution and by-laws. In the meantime the committee, which the resolution created, appointed to receive and disburse the funds for certain purposes, had come into existence, choosing for itself the name, Committee on Public Health Education.

\* \* \*

**Record of the Committee on Public Health Education.\***—The minutes of its several meetings have appeared in the OFFICIAL JOURNAL, and its work has gone steadily forward along conservative and carefully outlined lines. The committee's representatives have been very active in the work involved in educating the citizens of California concerning proper service in the healing art, as well as the need of maintaining high standards in protecting the health and lives of the people.

This educational campaign, so well carried on, explains in part the reaction of the voters of the State to the chiropractic initiative which went down to deserved defeat.†

Of the special assessment money collected (\$48,000) the sum of about \$12,000 has been used to date, leaving a balance of \$36,000 at the disposal of the Committee on Public Health Education to carry on its work until the next annual session convenes at Coronado in May, 1940. In view of the results already achieved, the Council expresses the hope that the comparatively small number of members who have not yet forwarded these special assessments to their respective county secretaries will do so before the close of the present calendar year.

#### MEDICAL LIBRARIES OF CALIFORNIA: PACKET SERVICE

**California's Medical Libraries Invite Use of Their Facilities.**—Closely related to postgraduate activities are the services rendered by medical libraries. Although California may not be able to boast of large storehouses of medical learning such as exist in some of the older centers in the East, the State nevertheless is blessed with three institu-

\* The roster of the Committee on Public Health Education appears on advertising page 6 of each issue of the OFFICIAL JOURNAL, its membership being as follows: Frank R. Makinson, chairman, Oakland; Karl L. Schaupp, secretary, San Francisco; Samuel Ayres, Jr., Los Angeles; Thomas A. Card, Riverside; Lowell S. Goin, Los Angeles; Junius B. Harris, Sacramento; Dewey R. Powell, Stockton; Charles A. Dukes (ex officio), Oakland.

† For Report of Committee, see page 399.



tions of which it may well be proud: the Library of the Medical School of the University of California, the Lane Medical Library of Stanford University, and the Barlow Medical Library of the Los Angeles County Medical Association. In addition, the San Francisco, Alameda, San Diego and Riverside County Medical Societies also maintain libraries available for certain local needs.

Attention of members of the California Medical Association is called to the three larger libraries first mentioned because these institutions are willing to be of service to members of the medical profession throughout the State. Communications addressed to them, on specified topics relating to packet service, will receive careful consideration, and librarians will be happy to send available literature from their reserve shelves.

The University of California Library is supported by state taxation and has taken over the work of the State Medical Library, the San Francisco and Los Angeles Branches of which were forced to suspend on July, 1939, when appropriations were no longer obtainable. Lane Medical Library, of Stanford University Medical School, and the Barlow Medical Library, of the Los Angeles County Medical Association, for a number of years have received annual donations from the California Medical Association, and, in return, have been glad to extend their facilities for packet library service to physicians who do not reside in their cities. For convenience in correspondence, therefore, their addresses are here given, and every Association member is invited to avail himself of the exceptional opportunities referred to:

University of California Medical Library, Medical Center, San Francisco, (telephone, MONTrose 3600.)

Lane Medical Library (Stanford Medical School), 2398 Sacramento Street, San Francisco, (telephone, WEst 8000).

Barlow Medical Library (Los Angeles County Medical Association), 634 South Westlake, Los Angeles, (telephone, FLtzroy 7694).

## ACHILLES HEEL OF AMERICAN MEDICINE

**"National Physicians' Committee for the Extension of Medical Service."**—Concerning the "National Physicians' Committee for the Extension of Medical Service"\* and its laudable objectives, discussion will be made in a future issue. Here and now, attention is called to the caption of these comments, "Achilles Heel of American Medicine," because that is the title of a reprint article appearing on page 360 in the current number of CALIFORNIA AND WESTERN MEDICINE.

The OFFICIAL JOURNAL has only rarely broken its self-imposed rule not to give place, in the original articles department, to reprinted topics. However, since circumstances alter cases, and because the medical profession of California has had some very illuminating experiences in recent years regarding attempts to institute governmental direc-

tion in medical practice, it seems desirable to give special place to the "Achilles Heel" article, in the hope that every member of the California Medical Association will take the time to read the important pronouncements contained therein, which are so forcibly and pungently stated.

The article was distributed in Chicago at the annual meeting of State Medical Association Secretaries and Editors, and bore on the front cover the following introduction:

A brief statement of the problem and a short outline of the steps that are being taken to offset the destructive processes which are undermining the profession and the industry.

While on the inside cover were these stimulating paragraphs:

The men now in medicine will determine what its future is to be.

A new factor is involved.

Propaganda coming into widespread use has adversely affected the status of the physician, and altered the viewpoint and the attitude of the patient.

The degree of independence, the relative place, and the quality of service of American Medicine for the future will be determined by the intelligence and vigor with which the physician faces—and deals with—this new problem.

The above should be additional incentive for perusal of the text of "The Achilles Heel of American Medicine," which, as before stated, appears on page 360 of this issue.\*

**Other State Association and Component County Society News.**—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 394.

## EDITORIAL COMMENT†

### CARCINOGENIC VIRUS IN TAR SARCOMA

Demonstration by McIntosh and Selbie<sup>1</sup> of Middlesex Hospital, England, of a carcinogenic virus in chemically induced sarcoma in fowls, coupled with Parson's<sup>2</sup> previous demonstration of a similar filterable virus in tar leukemia and sarcoma of mice, may necessitate revisions of current theories as to the etiology of chemically induced malignant disease.

The presence of atypical antigens in tar sarcoma was first deduced by Andrewes,<sup>3</sup> from serologic evidence. He found that a tar sarcoma of fowls would grow for a time if transplanted into adult pheasants. All pheasants thus serving as hosts for the malignant fowl tissues developed antibodies that would neutralize the virus of Rous sarcoma.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

\* See also article, "The Platform of the American Medical Association," on page 394.

<sup>1</sup> McIntosh, James, and Selbie, F. R.: Brit. J. Exper. Path., 20:49 (Feb.), 1939.

<sup>2</sup> Parsons, L. Dorothy; J. Path. and Bact., 43:1, 1936.

<sup>3</sup> Andrewes, C. H.: Ibid., 43:23, 1936.

\* Office of the National Physicians' Committee: Suite 207, at 700 North Michigan Avenue, Chicago, Illinois, John M. Pratt, executive administrator.

Such antibodies were never found in normal pheasants, nor in pheasants immunized against normal fowl tissues. Andrewes would explain this heterophile reaction by the assumption that tar sarcoma of fowls contain a carcinogenic virus similar to that of Rous sarcoma, even though this virus cannot be demonstrated by filtration methods.

In later tests of this theory, McIntosh and Selbie found nine tar-induced sarcoma of fowls in which a carcinogenic virus was present in effective concentration in Berkefeld filtrates. These five tar tumors could be propagated indefinitely in normal chickens by serial inoculation with filtered tumor extracts. They concluded that these five tar-induced sarcomas were, in reality, virus tumors, the tar merely serving as the initial potentiating or synergic agent, "playing no part in the maintenance of the subsequent malignant process."

The possibility that the alleged "virus" is nothing more than an autocatalytic colloid formed by tar denaturation of normal fowl cytoplasm, is now under investigation in their laboratory. There is no reason to believe that the virus is necessarily a preformed environmental factor. A partially denatured or atypically polymerized cytoplasmic colloid—a giant molecule which multiplies or is multiplied in symbiosis with altered tissue cells—is in line with the newest theories of cytology and colloidal chemistry.<sup>4</sup> Study of this presumptive denatured or synthesized colloid in chemically induced sarcoma, therefore, promises results of basic scientific interest as well as numerous practical applications.

P. O. Box 51.

W. H. MANWARING,  
Stanford University.

#### ACTINIC KERATOSIS OF THE LEFT FOREARM DUE TO DRIVING AN AUTOMOBILE

Keratosis are small, dry, hard, rough crusts apt to occur on the dry, hard skin of elderly people. Exposure to the weather, and especially to light rich in actinic rays, are among the chief causes of their occurrence. The great interest of these lesions consists in their tendency to degenerate into cancer. In the present instance the mode of exposure to light is the main feature.

A woman sixty-nine years of age, of fair complexion and in excellent health, consulted me for two keratoses on the extensor surface of the left forearm. One of these was heavily crusted and quite large, about pea-sized, and the other had appeared more recently and was much smaller. On curetting, the large one left a fairly deep depression, but only in the epithelial layer of the skin. In other words, it had extended into the rete malpighii, but no farther.

It struck me as peculiar that she should not show more evidence of similar trouble on the surfaces more usually affected, such as the face, the dorsae of the hands, or even the "V" at the front of the

neck so frequently exposed by women. The skin of the rest of the affected forearm was normal, except for being somewhat more pigmented than its fellow.

While reflecting on this the patient happened to remark that, because of an invalid sister, she drove her automobile a great deal. Instantly it struck me, as the patient was from the country, that this meant exposure of the left forearm to the sunlight, and she then admitted that it was so exposed, frequently and lengthily.

The patient had the fair skin of the tribes about the North Sea, whence she was descended. These people are poorly supplied with cutaneous pigment, and therefore peculiarly sensitive to the actinic rays of light. Besides that, she was living in latitude 37.5, which is that of Seville in the south of Spain, under a sun much richer in actinic rays than that to which she was racially adapted. Consequently, we had before us a forearm exposed day after day, and prolongedly, to a stronger sun than she was normally fitted to withstand.

The question then arose as to what measures should be taken to obviate this dangerous situation.

It is so comfortable while driving an automobile to rest the left forearm on the sill of the window that it would be "preaching in the desert" to advise against it, and I have no desire to emulate John the Baptist in this respect. A man usually has his arm covered by his shirt or coat sleeve, though this is not always the case, as many, especially youths, now go with bare arms. A woman, however, usually has her forearm uncovered.

So our patient was advised that in the future she should cover her left forearm while driving her automobile. Even a light sleeve is all that is required, and if this is of red or yellow material it will be all the more protective.

As for the color, anyone who does any photography knows that changing the plates is done under a red light, thoroughly shutting off the actinic rays, which would otherwise strike the plates. Also our farmers, in the not long ago, were subconsciously aware of the comfort afforded the neck by wearing red bandana handkerchiefs. Many of them even wore red shirts in summer.

450 Sutter Street.

DOUGLASS W. MONTGOMERY,  
San Francisco.

---

Two principles govern the moral and intellectual world. One is perpetual progress, the other the necessary limitations to that progress. If the former alone prevailed, there would be nothing steadfast and durable on earth, and the whole of social life would be the sport of winds and waves. If the latter had exclusive sway, or even if it obtained a mischievous preponderancy, everything would petrify or rot. The best ages of the world are those in which these two principles are the most equally balanced. In such ages every enlightened man ought to adopt both principles, and with one hand develop what he can, with the other restrain and uphold what he ought.—Gentz.

---

So closely related are the stomach and the heart that they are frequently confused when trouble in one or the other arrives.

<sup>4</sup> Bernal, J. D., et al.: Symposium on the Cell and Proto-plasm, Stanford University, California, June 30 to July 5, 1939. (To be published.)



# ORIGINAL ARTICLES

## THE ACHILLES HEEL OF AMERICAN MEDICINE\*

THE weak spot in American Medicine is in its singleness of purpose. Its greatest danger lies in the exclusiveness of its devotion to scientific improvement and technical effectiveness.

In a period of one hundred and fifty years in the United States, the life expectancy of man has been raised from thirty-five years to sixty-two years—nearly doubled.

During this period typhus fever practically has disappeared; smallpox has been robbed of its terror; diphtheria has been conquered; typhoid fever, tuberculosis, diabetes, and a score of lesser ailments have been subjected to control.

Today, a child born into an average American home has the prospect of living more than ten years longer than a child born into a similar home in any other great nation in the world.

### WORLD SUPREMACY

These are some of the achievements of American Medicine. Back of the achievements are the scientists, the medical schools, the research laboratories, the production and distribution of drugs and medicines, the technical skills and the methods of practice and of hospitalization that have brought world-wide recognition of supremacy in the field of medicine and medical practice.

### 1938—BEST HEALTH RECORD

This American Medicine gave to the United States, in the calendar year of 1938, the most favorable health record of its one hundred and fifty years' history. It resulted—in 1938—in the highest general level of health and the lowest death rate ever known in the United States or for any comparable number of people anywhere in the world.†

### INDEPENDENCE THREATENED

Yet, in the face of this unparalleled record of accomplishment, American Medicine is under attack.

Unless the American people are made fully aware of these facts and become conscious of their meaning in terms of public benefit and individual security, American Medicine may be fettered. Its further development and its opportunity for service may be restricted. Its independence, which made possible its progress, may be forfeited.

Here is to be found the "Achilles Heel" of American Medicine. It concerned itself with the prevention, control, and the curing of disease so completely that it has failed to keep the public fully aware of its advances and of its superiority. If ethical and scientific standards that have prevailed are to be safeguarded and the independence of American Medicine preserved, the profession must

assume this responsibility. The men in American Medicine will determine what its future is to be.

### TWO NEW CONDITIONS

Medicine is confronted with two new sets of conditions. On the one hand, widespread unemployment, low farm income, and the continuation of conditions of general depression have made it difficult for an ever-increasing number of people to pay for the best medical service and proper hospitalization out of earnings.

On the other hand, there is the trend—world-wide in scope—toward governmental paternalism and the false, suicidal doctrine that the "State" can provide a service and a security that the people cannot otherwise obtain. As related to medicine, the implementing of this concept would effect revolutionary changes in both the practice of medicine and the underlying philosophy which has given it the dynamic quality that resulted in world-wide leadership.

### BREAK ON PROGRESS

Always there are scoffers, but, unless the present trend is checked, this movement will lead to the regimentation of the medical profession and the practice of medicine under direct control of the government. In this instance, the historic statement of President Lincoln, "No nation can survive half-slave and half-free," applies with equal force. The first step leads to a second; the second necessitates a third, and the succession of steps leads to regimentation.

*Regimentation inevitably stifles initiative and places a brake on progress.*

### CONFLICTING OBJECTIVES

The present critical situation for the medical profession is the result of conflicting objectives. We have the well-being of the individual from the standpoint of health and medical service. As opposed to this we have the political advantage that would accrue through the control of medicine, medical practice, and hospitalization by government.

### RUTHLESS ATTACK

To secure this political advantage, certain selfish political elements are sponsoring changes that, in many respects, are vicious. Until these elements began their undermining campaign for these changes, there was widespread, almost universal, confidence on the part of the public, in the efficacy of American Medicine and American physicians. Apparently, they felt that if these changes were to become successful in operation, public support was essential. To secure this public support it was necessary to destroy the people's confidence in American Medicine and, to a degree at least, to discredit the practicing physician.

With the ruthlessness and lack of justification that characterizes totalitarianism, the necessary preliminary steps were taken. Representatives of organized medicine were haled before a Federal Grand Jury. Not civil, but criminal charges were preferred against them. On the basis of representations made by the agents of the Department

\* Reprint of a brochure appearing under the sponsorship of the "National Physicians' Committee for the Extension of Medical Service," 700 North Michigan Avenue, Chicago.

See also in this issue, comments on pages 358, 394, and 410.

† For articles in CALIFORNIA AND WESTERN MEDICINE, see issues of April, 1939, on page 318; and June, 1939, on page 461.

of Justice, on December 21, 1938, criminal indictments were voted by the Federal Grand Jury.

Subsequently, the case was dismissed by a Federal Judge with a scathing denunciation of the tactics that had been employed.

#### EFFECTS DAMAGING

Relatively, this is unimportant. The move had served its purpose. The world had been told through newspapers, magazines, the radio, from public platforms and by word of mouth, that the doctors were operating a monopoly and that the public interest was being sacrificed. There had never before been made an attempt to browbeat an entire trade or profession or an industry. A new precedent was established. The damaging effects of this adverse propaganda extended to the remotest hamlet in the United States. It paved the way for the introduction of the Wagner National Health Bill in the Senate on February 28, 1939.

#### THE NATIONAL HEALTH BILL

The provisions of the Wagner National Health Bill are generally known. Unprejudiced authorities saw in the measure the prospect of prejudicing public health and seriously impairing the efforts of practicing physicians. It provoked a veritable storm of protest from those truly interested in the prevention and cure of disease and the alleviation of human suffering.

#### AMERICAN MEDICAL ASSOCIATION TAKES STAND

On May 17, the House of Delegates of the American Medical Association unanimously adopted a resolution, the import of which is embodied in the following paragraph:

"The American Medical Association would fail in its public trust if it neglected to express itself unmistakably and emphatically regarding any threat to the national health and well-being. It must, therefore, speaking with professional competence, oppose the Wagner Health Bill."

It should be noted that "the public interest" was the all-important consideration in this finding.

The Senate Subcommittee on Education and Labor held hearings and recorded testimony on the National Health Bill over a period of nearly three months. The Congress adjourned without the Bill being voted out of the Committee for consideration by the Congress.

#### NEW BILL IMMINENT

Much of this is history. The important fact is that there will be a new health bill before the next Congress. In all likelihood, public health will be a major consideration in the presidential election in 1940. In this sense—and in spite of all the efforts that have been made to avoid it—health and medicine, medical practice, and hospitalization, have become political issues.

#### LOGIC OF THE CASE

The fact is that American Medicine has provided the most effective and the most widely distributed medical and hospital service in the world. Yet the

public, through newspapers, books, magazines, and the radio, hears that it is inadequate and ineffective.

The public is being taught that medical care and hospital service are unavailable in sparsely settled and inhospitable areas, and should be provided by government. It is as reasonable to attempt to provide housing and food and clothing to a group which might decide to settle in the center of the Mojave Desert.

The public is being taught that it is being imposed upon by organized medicine. Systematically, it is being schooled in the belief that only government can provide medical care that will insure to each and every one the maximum efficiency in the treatment of disease.

#### EXPERIENCE CONTRADICTED

If there be truth in this teaching, it contradicts the experience of the nations of the world over a period of fifty years. During this period, for differing lengths of time and in varying degrees, the medicines of England, France, Germany, and Russia have been subject to control or administration by government. During this period, American Medicine moved forward to world leadership and, in 1938, gave to the United States its best general health record.

The issue has been joined.

#### VITALLY IMPORTANT DECISION

The future of American Medicine will be determined by the manner in which the doctors face and respond to this new challenge and new responsibility.

If the ethical and scientific standards are to be maintained, the independence of American Medicine preserved, and the public interest best served, American physicians must:

1. *Make possible the providing of medical service to the indigent and those in the low income groups, and insure the most widespread distribution of the most effective methods and equipment in medicine and surgery.*

2. *Assume the responsibility of countering destructive propaganda by familiarizing the public with the facts in connection with the methods and the achievements of American Medicine.*

To meet these needs the National Physicians' Committee for the Extension of Medical Service came into being. It has established headquarters in Suite 207-209, 700 North Michigan Avenue, Chicago, Illinois.

Initially it will advocate:

1. *The maintenance of independent private medical practice.*

2. *The preservation and extension of our independent hospital system.*

3. *The centralization of all health services of Federal and State governments.*

4. *The determination of health requirements on the basis of locally gathered and locally interpreted data and the utilizing of grants-in-aid only under conditions of locally demonstrated needs.*

5. *Control and disbursement of public health funds by administrators locally appointed or locally elected.*



This committee will, to the fullest possible extent within the abilities and resources, familiarize the general public with its *program and policies, private and public health needs; the achievements of and the position occupied by American Medicine; the services rendered by physicians—how and where these services are available, and will utilize to accomplish these purposes:*

The daily, weekly, and trade papers; magazines; radio; public meetings; and the coöperation and services of other agencies or organized groups, which can aid effectively in promoting the objectives sought.

#### WELL EQUIPPED

This new institution has the knowledge, the personnel, the machinery to perform a vitally important service for the medical profession and to become an important aid in safeguarding the health interests of the public.

#### DOCTOR DETERMINING FACTOR

*The degree of its effectiveness will be measured by the extent of the moral and financial support contributed by American physicians.*

Will American Medicine assume its new responsibility?\*

### HEADACHES OF CHRONIC OR RECURRING TYPE: CONSIDERED FROM THE VIEW-POINT OF THE INTERNIST†

By DWIGHT L. WILBUR, M. D.

AND

LINDOL R. FRENCH, M. D.

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IN a discussion of headaches from the standpoint of the internist, in such a short space of time as by necessity has been allotted to us in this symposium, little information can be presented other than a very brief outline of certain types of headaches, and of the symptoms and findings which are characteristic of them. The results obtained would not be worthy of the effort if it were not for the fact that chronic and recurring headaches commonly present a difficult diagnostic problem. In the last analysis, the majority of patients who have such diagnostic problems eventually land in the office of the internist, or the internist is called upon by the patient or his physician to pass judgment on the importance of an abnormality found in the eyes, the nose, the teeth, or elsewhere as a cause for headaches. Consequently, the internist must be familiar with a large variety of headaches, and with the value of certain diagnostic and therapeutic procedures in elucidating and relieving them; and the ophthalmologist and otolaryngologist must be familiar with some of the "general conditions" which characteristically lead to chronic headaches.

\* Members of the California Medical Association are invited to present their views to the new organization, which may be addressed: National Physicians' Committee, 700 North Michigan Avenue, Chicago, Illinois. (John M. Pratt, Executive Administrator.)

† Read before the Section on Eye, Ear, Nose and Throat of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

#### FREQUENCY OF HEADACHES

Headache is an almost universal complaint. Riley<sup>1</sup> has well said that "if one would search for the human ill which has manifested itself most widely during all times, and among all peoples, there can be but little doubt that headaches would attain this unenviable distinction." Headache accompanies so many diseases and conditions that almost all of us at some time have suffered from at least one variety of headache. The frequency with which headache is mentioned as a symptom in advertisements for almost all types of patent medicines is a good indication of the fact that it is a very common complaint.

The incidence of various types of headaches is not at all clear, and very little information on this subject is available. Indeed, wide differences of opinion exist in regard to the frequency of various types of headaches, as is indicated by the fact that some ophthalmologists have stated that 90 per cent of all headaches are the result of eyestrain, whereas some clinicians have placed the incidence of this type of headache at from 10 to 15 per cent of all cases. A neurologist, who classified the headaches in patients coming under his observation, noted the following incidence of them: 45 per cent neuros-thenic, 6 per cent hysterical, 17 per cent organic, 19 per cent gastro-intestinal, and 13 per cent diseases of the special senses. It is of interest to note that, in over one-half of the cases in this group, the headaches were due to disturbances of nervous or functional origin.

#### MECHANISM OF HEADACHES

Since the brain is insensitive, it is obvious that headaches must arise through mechanisms having to do (1) with stimulation of nerves supplying the dura, scalp or other cranial structures; (2) with alterations in the blood vessels or in the flow of blood to the head; (3) with changes in intracranial pressure; (4) with diseases of the skull; (5) with lesions of the thalamus (called "central pain"), and (6) with unknown factors.

It is quite likely that the majority of headaches arise as the result of stimulation of branches of the fifth cranial or trigeminal nerves which supply sensory fibers to the greater part of the dura as well as to the anterior half of the head. Other nerves, which carry sensory fibers from the head, include the tenth or vagus nerves which supply a portion of the dura, the ninth or glossopharyngeal nerves which supply parts of the posterior and lateral walls of the pharynx, and the upper cervical nerves which supply the occipital area. In addition, there are a large number of sympathetic nerve fibers accompanying blood vessels which supply the brain. Stimulation of these fibers is thought to produce a characteristic type of headache.

Changes in the blood vessels which are apt to lead to headaches have to do principally with sudden changes in the caliber of them and, consequently, of the volume of blood flow within the cranial cavity. Rapid changes in blood flow probably produce headaches as a result of sudden alterations in intracranial pressure, or as a result of

stimulation of the sympathetic-nerve fibers which accompany blood vessels.

Rapid or excessive increases or decreases in intracranial pressure ordinarily produce headaches. The mechanism by which the headache develops is not clearly known; but it probably comes about as a result of stimulation of nerves supplying the dura, and possibly also as a result of the effect of the change in pressure on blood vessels, and on accompanying sympathetic nerve fibers.

Very little is known of so-called thalamic or central pain. Direct stimulation of centers by lesions in the thalamus may account for headaches, but such headaches probably are rare.

Very little is known of the mechanism which causes headaches of the psychogenic or psychoneurotic type.

#### CLASSIFICATION

A satisfactory classification of headaches is impossible, because so little is known of the etiology and pathologic physiology of them. Consequently, any classification based on etiologic factors, on pathologic features, or on clinical phases of headaches, is inadequate. For purposes of discussion there is advantage in trying to group various types of headaches together, and such a grouping as that noted in Table 1 has been used in the present discussion.

##### I. RHEUMATIC HEADACHES

Rheumatic headaches also are known as nodular, indurative or fibrositic headaches. They presumably are caused by inflammatory reactions in the muscles and fascia overlying the skull and nuchal region. Such headaches usually are superficial, dull and often constant, and they are apt to be located in the occipital region and in the neck. Often rheumatic headaches are aggravated by prolonged tension on the neck muscles, such as that induced by sitting in a position in which the head is slightly flexed, as in sewing, reading, and writing. They are aggravated also by exposure of the back of the head and the neck to a draft or to cold. Occasionally rheumatic headaches are worse after a night's rest. In other words, rheumatic headaches have the characteristics of rheumatic pains and aches in other parts of the body.

On examination of the patient with such a headache, one is apt to find the involved area to be diffusely tender or there may be localized spots of tenderness over the nuchal area or occiput. Further examination not infrequently reveals thickening of the nape of the neck. In almost all cases there is relief of the rheumatic headache when heat is applied to the area which aches.

##### II. HEADACHES DUE TO ORGANIC DISEASE OF THE CENTRAL NERVOUS SYSTEM

Headaches which result from organic diseases of the central nervous system are most commonly due to a brain tumor or to an inflammatory lesion such as that produced by syphilis.

The headache accompanying a cerebral neoplasm usually is due to increased intracranial pressure; it generally is of relatively recent onset and is pro-

TABLE 1.—*Grouping of Types of Headaches*

1. Rheumatic headaches.
2. Headache due to organic disease of the central nervous system.
3. Neuralgias.
4. Headaches due to diseases of the special senses, nose and teeth.
5. Headaches due to disorders of circulation.
6. Psychoneurotic headaches.
7. Posttraumatic headaches.
8. Migraine.
9. Toxic headaches.
10. Reflex headaches.

gressive; it is apt to be generalized and severe, and it tends to appear early in the morning and to awaken the patient from a sound sleep. Headaches due to intracranial tumors are not commonly localized, although occasionally they may occur on one side of the head only. If the headache is unilateral it usually remains on one side; or at least it begins and is most intense on one side, although it may spread to the other side. Neoplasms involving the pituitary gland may produce headaches which occur especially in the temporal and supra-orbital regions and which are progressive and often constant. Symptoms which commonly accompany the headaches of brain tumor, and which should lead one to suspect the diagnosis, include projectile vomiting, visual disturbances, a slow and irregular pulse, convulsions, and sensory and motor changes.

Headaches of a generalized, usually severe and intermittent type which are diffuse, dull and stupifying in character, and which develop for the first time in the fifth or sixth decades of life, should make the clinician suspect the possibility of syphilis involving the nervous system as an etiologic factor. This type of headache occurs principally in the meningovascular type of syphilis of the central nervous system, and it may or may not be accompanied by other symptoms suggesting luetic involvement of the nervous system. Such a headache is not frequent in paresis.

The headaches which accompany chronic inflammatory conditions of the central nervous system, such as tuberculous meningitis, generally are constant, severe, and diffuse. The diagnosis is suspected because of accompanying symptoms of meningitis, and it may be confirmed by examination of the spinal fluid.

##### III. HEADACHES DUE TO DISEASES OF THE SPECIAL SENSES, NOSE AND TEETH

Diseases of the eyes, ears, and nose very commonly are blamed for the occurrence of headaches. Since other participants in the symposium will present various phases of this subject, little more need be said on this point. However, from the standpoint of the general physician it should be pointed out that it is quite probable that chronic headaches are not as commonly caused by diseases of these organs as generally is supposed. Woltman<sup>2</sup> has stated that too often headache is assumed to be of nasal origin, as the frequency of operative failure proves; and that a history which suggests a relationship of headache to disease of the nose often is a safer guide than is the discovery of some unheralded pathologic deviation in the nose.



TABLE 2.—*Diagnostic Procedures in Cases of Headache*

1. History (see text).
2. Physical examination.
  - a. Head injuries, nodules, tumors.
  - b. Ocular fundi.
  - c. Blood pressure.
  - d. Neurotic manifestations.
  - e. Organic diseases which lead to headaches.
3. Neurologic examinations.
4. Examination of the eyes.
  - a. Refractive errors.
  - b. Changes in tension, etc.
5. Examination of ears, nose and throat.
  - a. Accessory sinus disease.
  - b. Tumors.
  - c. Mastoid infections, etc.
6. Examination of teeth.
  - a. Search for impacted or abscessed teeth.
  - b. Disturbed function of temporomandibular joint.
7. Allergic survey.
8. Laboratory examination.
  - a. Blood count.
  - b. Urinalysis.
  - c. Wassermann.
  - d. Spinal fluid examination.
9. Roentgenologic examination.
  - a. Head.
  - b. Cervical spine.
10. Encephalogram, ventriculogram.
11. Therapeutic tests.
  - a. Effect of properly fitted glasses.
  - b. Effect of intranasal treatment.
  - c. Effect of psychotherapy.
  - d. Effect of ergotamine.

Occasional cases in which chronic headaches have been relieved by removal of an impacted third molar tooth have been described. Recently Costen<sup>3</sup> has emphasized the importance of poor dental occlusion due to disturbed function of the temporomandibular joint as a cause for headaches. He states that the headache in this condition occurs about the vertex and occiput and behind the ears, increasing toward the end of the day. Associated with this headache there may be a burning sensation in the throat, tongue, and side of the nose, and dryness of the mouth.

#### IV. HEADACHES DUE TO DISORDERS OF CIRCULATION

As previously has been pointed out, the brain is in an enclosed cavity and, consequently, sudden or gradual changes in blood flow or blood pressure may induce headaches. The most characteristic headache of this type is that associated with hypertension.

**Hypertensive Headache.** The headache of patients with hypertension generally is in the back of the head and in the upper cervical region. It usually is present on awakening in the morning, although it rarely awakens the patient. Headaches of this type gradually disappear as the patient arises, as he moves about, or takes coffee. The headache of hypertension usually occurs daily, although it may disappear temporarily at intervals; but headaches in cases of malignant and severe hypertension may be severe and rather constant in occurrence. Headaches of this type most likely are the result of increases in intracranial pressure.

**Cerebral Hemorrhage and Thrombosis.** Older clinicians often wrote of headaches associated with cerebral hemorrhage and thrombosis. However,

headache is by no means a common symptom in these conditions. Occasionally there may be a severe headache which usually is generalized in location and which, at times, may actually precede other symptoms of the vascular accident. The rather sudden development of severe headache in a patient with hypertension or in an old arteriosclerotic patient may lead one to suspect the occurrence of a vascular accident. If, in addition to the headache, there are signs of meningeal irritation, such as rigidity of the neck and a positive Kernig's sign, the evidence further suggests a cerebral vascular accident, and it may be expected that blood will be found in the spinal fluid. The very sudden onset of severe headache and the presence of these signs in a young person suggest rupture of an aneurysm.

**Chronic Passive Congestion.** Congestion associated with cardiac failure, with intrathoracic tumor, or with congenital stenosis of the isthmus of the aorta, may lead to the development of a headache which is constant, generalized, perhaps accentuated in the region of the temples, and relieved by whatever procedure relieves the passive congestion. Polycythemia vera may lead to the development of a constant dull headache also.

**Subdural Hematoma.** Interest in the subject of subdural hematoma has focused attention on the importance of headaches as a symptom of this condition. The outstanding clinical feature of the headache due to this condition is that of gradual onset of a headache days or weeks after injury to the head. The occurrence of this sequence of events should arouse suspicion, particularly if associated with the headache there are visual disturbances, aphasia, sensory or motor changes, and choking of the optic discs. Headaches from this cause may be severe and usually they are generalized, although occasionally they may be localized to one side of the head.

**Thrombosis of the intracranial venous sinuses** may also lead to headache.

**Hypotension.** Sudden drops in blood pressure, such as follow administration of nitrites and histamin, commonly lead to headache of a dull generalized "congested" type. Whether hypotension of a more chronic form, and anemia and arteriosclerosis of the central nervous system also may lead to headaches is quite uncertain.

#### V. PSYCHONEUROTIC HEADACHES

Headache is the scapegoat of the psychoneurotic. This symptom is a very common one among psychoneurotic patients, and it may offer great difficulty in the way of diagnosis and treatment.

Headaches which are described as a sense of pressure, a "tight band" about the head, or a burning, pulling sensation, are very likely to be due to psychoneurosis, and these symptomatic features are uncommon in headaches due to organic lesions. As a rule the headache of the psychoneurotic does not have any of the characteristic sequences of events which so frequently characterize the headache of hypertension, migraine and brain tumor. Another clinical feature which may be of diagnostic value is the association of the headache with

other symptoms or findings which suggest that the patient is a psychoneurotic, namely, emotional instability, rapid fatigue, insomnia, downheartedness, a feeling of unreality or inadequacy, an unsatisfactory response to his environment, and a gloomy refusal to believe in recovery. Psychoneurotic headaches usually are not affected by sudden changes in posture or by jarring.

Woltman<sup>2</sup> has pointed out that long-continued and wholly uninterrupted headaches usually are associated with some psychoneurotic disorder, and particularly with depression and hysteria.

Many patients with chronic nervous exhaustion and with a psychoneurosis do not complain of headache but of a "toxic feeling" in the head, or they may describe it as a feeling as if the head were not clear, or as if it were too full.

#### VI. POSTTRAUMATIC HEADACHES

One of the most difficult diagnostic problems is that presented by the patient who has a chronic or recurring headache following trauma to the head. Headaches of this type may be the result of injury leading to a disturbance in the flow of cerebrospinal fluid, or they may be the result of a posttraumatic neurosis. In some cases, even after careful observation, including encephalographic study, it may be impossible clearly to differentiate between the case which is organic and that which is functional in origin. Certain clinical features which suggest the possibility of a neurosis are the presence of psychoneurotic symptoms as well as of an intermittent effort on testing the strength, of past-pointing which obviously is spurious, and of a complaint of failing memory and of pessimism. The presence of giddiness, tremor and weakness, and exaggeration of the headache following physical and mental effort, suggest that it is psychogenic.

#### VII. MIGRAINE

While the majority of patients with migraine have the characteristic symptoms usually attributed to this condition, there are unusual manifestations which occasionally are observed. These include (1) ophthalmic migraine, in which the symptoms are limited to the eyes; this type occurs in about 10 per cent of cases. (2) Ophthalmoplegic migraine, with periodic paralysis of varying combinations of the third, fourth, and sixth cranial nerves for from two days to two weeks. (3) Facio-plegic migraine, in which there is temporary paralysis of one side of the face, (4) abdominal migraine in which the symptoms are predominantly abdominal or gastro-intestinal and in which the headache may be minimal or absent. In some of these cases the patient may complain only of indigestion or "stomach trouble," but careful questioning will reveal the presence of features characteristic of migraine. (5) Psychic migraine. In cases of this sort, which probably are uncommon, various symptoms, such as confusion, impaired memory, depression, ill-humor, and drowsiness are outstanding, and overshadow or replace the headache of migraine. (6) Psychic equivalents. Psychiatrists and neurologists still are debating the

possibility of occurrence of psychic equivalents in place of the attacks of headache in migraine.

The symptoms of the typical attack of migraine are well known, and most of the cases have been recognized by the patient or his physician. The history of similar headaches in other members of the family, the unilaterality of the headache, the frequent involvement of the eyeball, the associated nausea and vomiting, and the periodic occurrence of the headaches and the association of gastro-intestinal symptoms with them, are perhaps the most characteristic features of this condition, although the gastro-intestinal symptoms are not always present. Woltman<sup>2</sup> has called attention to the fact that shifting of the situation of the pain with different attacks, or in the course of a single attack, is a characteristic of migraine.

Other points which may be of diagnostic value are aggravation of the headache by stooping and jarring, and by bright lights and noises, the infrequency with which the headaches interfere with sleep, onset of the headaches in the late 'teens or twenties, and relief of the headache during the pregnancy and after the menopause.

There are many theories as to the origin of migraine, but none of them has proved to be entirely satisfactory. It has been suggested that migraine is due to the following causes: reflex disturbances, central disturbances such as those of changing pressures and altered vasomotor control, allergic disorders, duodenal stasis, alterations in hypophyseal function, toxic changes, endocrine disturbances, and alterations in function of the vasomotor and vegetative nervous system.

In the case of patients who have migraine it often is possible to determine the factors which precipitate the attack of headache. These factors include emotional upsets or fatigue, especially when they are associated with the necessity of attending to several matters at the same time; sleeping beyond the usual time; unknown factors normally occurring in association with menstrual function; gastro-intestinal upsets, including constipation, sensitivity to certain foods, such as chocolate, and waiting beyond the usual time for a meal or missing a meal. In some cases the precipitating factors are unknown.

#### VIII. TOXIC HEADACHES

Toxic headaches are caused by the toxemias which accompany generalized infections, nephritis, alkalosis, acidosis, and poisoning such as that due to lead, carbon monoxid and other substances.

Toxic headaches usually are aching and dull in character, bilateral and vaguely frontal, temporal or general in location. They are more or less constant, they are aggravated by stooping, straining and jarring, and to some extent they may fluctuate in intensity. The mechanism leading to the production of them probably has to do with direct chemical irritation or stimulation of the nerves supplying the dura, or to changes in intracranial pressure.

#### IX. REFLEX HEADACHES

Many authorities who have discussed the subject of headaches have given a good deal of at-



tention to reflex headaches. By this term is meant headaches which are due to disturbances in the body other than in the head, and which occur as a result of reflex action. It is very difficult to evaluate the problem of reflex headaches or to describe a mechanism which adequately will explain them. Perhaps to some extent they may be toxic in origin.

Reflex headaches are thought to arise most commonly as a result of disturbances in the function of the gastro-intestinal and the genito-urinary tracts. Headaches not uncommonly are associated with constipation, duodenal stasis, and perhaps biliary-tract disease. The headache of constipation usually is described as frontal or temporal in location, throbbing and pulsating in character, and exaggerated by a sudden movement. The rapidity with which it is relieved by a bowel movement suggests that it is not due to toxemia. The headache which occurs as a result of duodenal stasis is frontal or temporal in location; it frequently is intense and at times it is associated with vertigo. It may have some of the characteristics of migraine, including relief following vomiting.

Headaches in association with abnormalities in the female pelvis have been described by many investigators. It has been thought by some of them that retroversion of the uterus, prolapse of the ovary, and alterations in menstrual function were the cause of headaches. However, it is extremely difficult to evaluate such reports, to establish mechanisms by which such changes reflexly could lead to headache; and, consequently, it seems wise to assume a conservative attitude in ascribing to this cause a headache which cannot otherwise be explained.

#### THE DIAGNOSIS OF HEADACHES

Headaches are symptoms and, consequently, in the diagnosis of them the history is exceedingly important. The cause of chronic headaches usually can be resolved, although at times it may be extremely difficult to establish a correct diagnosis.

##### *History.*

An adequate history is probably the most important evidence in establishing the diagnosis of headache, and yet it often is badly neglected. The skill of the physician may be severely taxed in taking an adequate history; he should inquire into such facts as the location of the headache, its character, duration, severity, and frequency. The cause and time of onset of the headache (*i. e.*, day or week), as well as to the presence and nature of associated phenomena, and the results of previous methods of treatment which have been given should be established.

Woltman<sup>2</sup> has emphasized the importance of certain questions in developing an adequate history, and includes such points as the following:

1. When did the headache first appear? Did you never have headaches before that?
2. How often do they come? And how long do they last, and at what time of day or week?
3. Do they awaken you from sleep? If they do, it suggests the presence of organic disease.
4. In what part of the head is the pain? Is it never in some other part? A shift in locality, especially in the transverse direction, suggests migraine.

5. What is the pain like?

6. Are the headaches growing better or worse? Are there several types of aches?

7. Are there any warning or associated symptoms, such as numbness, spots before the eyes, blurred vision, euphoria, or depression? These suggest migraine.

8. Does a delayed meal, sleeping late, fatigue, worry, or excitement result in a headache? What is the relationship to menstruation or pregnancy? These questions contain the earmarks of migraine.

9. Do other members of the family have headaches?

10. Does stooping, straining or shaking of the head aggravate the pain? These are characteristics of organic headaches and migraine, but not of psychoneurotic ones.

11. Does a cold draft start it? Does heat relieve it? Is the scalp, or are the muscles of the neck, tender? Positive answers suggest rheumatic headaches.

12. Does the use of the eyes bring them on? Have glasses relieved them?

13. Does the headache occur with hay fever, asthma, or following use of certain types of foods? Is there a history of allergic diseases in the family?

14. Is the nose stuffy during the attack? Is there any associated nasal discharge?

##### *Physical Examination.*

Physical examination is extremely important in establishing the diagnosis in some cases. The head should be examined for abnormalities, such as injuries, tender spots, and tumors. The ocular fundi should be examined for choking of the optic discs, and for evidence of systemic diseases. On examination, one should also estimate the blood pressure and search for neurotic manifestations and for evidence of organic diseases which are known to be accompanied by headaches.

In cases in which the history and physical examination fail to give information which will explain the headaches, careful attention must be paid to special examination of the ears, nose and throat, and to the eyes and teeth. Refractive errors, increases in ocular tension, previously unsuspected diseases of the nasal accessory sinuses and impacted teeth may explain the headaches. A neurologic examination may be helpful in establishing the diagnosis, while in other cases an allergic survey may suggest an adequate cause to explain the headaches.

##### *Laboratory Tests.*

Laboratory tests which may prove helpful in diagnosis include blood count, urinalysis, blood Wassermann reaction, and studies of the spinal fluid.

##### *Roentgenologic Examination.*

Roentgenologic examination of the skull and of the cervical spine may be of great diagnostic value. Studies of the cervical spine should not be omitted in cases in which the headaches involve the occipital portion of the head, particularly if the headache has the characteristics of a rheumatic headache.

In occasional cases resort will have to be made to an encephalogram or ventriculogram to permit an accurate diagnosis.

##### *Therapeutic Tests.*

Finally, therapeutic tests may be of great diagnostic value. Relief of headaches, following correction of a refractive error or following intranasal treatment, suggests that the cause of the preëxisting headache was in the eyes or in the nose. Relief of headaches, following an injection of ergotamin

or ergonovin, suggests that it is the result of migraine. Relief of headache following psychotherapy is indicative of a psychoneurotic origin for them.

#### SUMMARY

In this paper has been presented in brief outline a bird's-eye view of the problem of headaches from the standpoint of the internist, with particular reference to some of the general diagnostic features of rheumatic, toxic, reflex, psychoneurotic and migraine headaches, as well as of those due to organic diseases of the nervous system, diseases of the special senses, disorders of circulation and posttraumatic states.

490 Post Street.

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### HEADACHES: FROM THE POINT OF VIEW OF THE OPHTHALMOLOGIST\*

By WARREN D. HORNER, M. D.  
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WHAT can the ophthalmologist contribute toward the relief of headaches? We know that headache is one of the commonest symptoms of eye disorders and that the eyes in general account for a considerable number of them. Headache is second only to defective vision as a chief complaint in ophthalmic practice.

If the foregoing is true, when, then, may we suspect an eye headache? We may suspect an ocular headache when the patient gives an affirmative answer to two questions: (1) Does use of the eyes bring on the headache? (2) If headache is present, does use of the eyes make it worse?

A patient's denial of these questions makes it so improbable that his headaches are ocular in origin that an eye examination may be dispensed with, or at least deferred until other more likely causes are investigated. An exception to this broad statement exists where an intracranial lesion is suspected. Headache is seldom the only symptom of eyestrain, so that corroborative evidence may be gained by questioning the patient about blurring, burning, diplopia, sleepiness and fatigue at close work. If eye use initiates or increases headache, the pain should be increasingly worse during the afternoon and evening. It is apt to be less on Sundays than week-days. It may, however, arise from glare and be connected with movies, driving, or bright light at any time. Excessive evening reading occasionally causes a headache to carry over until morning.

The type of pain and its location is of secondary importance, in my experience. While often located in the brow or behind the eyes, it may be temporal or occipital. The latter position might suggest the question of head posture, particularly

in those people wearing bifocals. Persistent pain localized about one eye suggests migraine, vertical muscle imbalance or an impacted wisdom tooth.

#### CAUSATIVE FACTORS

What is the mechanism of headache which originates from organic or functional disorders of the visual apparatus? It is probable that this is a reflex pain through the V nerve. Stimulation of the endings of the ophthalmic division of this nerve is reflected along its other branches. For instance, changes in the eyeball may be felt in the region of the brow by way of the supra-orbital nerve, and pain felt deep in the skull is reflected along the dural branches. Michaelson's studies of the visceral reflex origin conclude that the mechanism which underlies a ciliary headache is analogous to that which gives rise to referred visceral pain in other parts of the body. That is to say, a ciliary headache arises from ciliary dysfunction in the same way that angina pectoris arises from cardiac dysfunction. In his study, Michaelson showed that ciliary muscle contraction, relaxation, and fatigue could initiate this pain and produce either a dull aching throb, a sharp knife-like pain, a heavy, tired feeling, or a tight-gripping sensation. He found that the degree of pain in a visceral reflex depends upon the changing nervous excitability of the nervous system—not only at the particular level of the cord being sensitized by afferent stimuli, but generally in instances where the central nervous system is already hypersensitive from toxic conditions, overwork, lack of sleep, mental worries, and the like.

The sympathetic system also has a rôle in ocular headache. The network of vessels in and about the eye is accompanied by a delicate network of sympathetic fibrils controlling vascular tone. Among these vegetative nerves are scattered sensory end-organs which report changes in pressure, edema, hemorrhage, hyperemia, and inflammation. Local toxins, whether bacterial, chemical, or the results of body wastes, fatigue or perverted metabolism, have similar irritant effects upon these sensory terminals.

In general, then, ocular headache in and about the eye represents local pathology which is often accentuated through the sympathetic system, while it is reported to the area where the headache is felt by way of the fifth nerve and its connections, particularly dural connections. On the other hand, conditions within the brain or those affecting sympathetic or sensory nerves may be referred to or about the eye, producing irritation or congestions which appear local.

Temple Fay<sup>1</sup> noted that stimulation of the arterial tree near the circle of Willis or the superior sinus produced referred pain deep in the eyes. Stimulation of the tentorial veins and lateral sinuses produced pain referred to the occipital area and behind the eyes. Compression of the jugular vein of the neck, with pressure in the lateral and posterior superior sinuses, produced occipital headache referred to the back of the eyes, when the vascular engorgement reached a point of gross dilatation of the dural sinuses.

\* Read before the Section on Eye, Ear, Nose and Throat of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.



Departures from normal in the ocular mechanism itself can be readily demonstrated by a careful eye examination, the details of which would be superfluous here. But the findings must be regarded by the oculist in the light of his experience, and in conjunction with the general impression he has gained of his patient—that is to say, his complaints, his state of health, his temperament, his work, habits, and the like.

#### OCULAR FACTORS

The local factors involved in the production of ocular headaches are grouped by Weeks<sup>2</sup> as:

1. Disturbances of refraction and accommodation.
2. Disturbances of ocular motility.
3. Disturbances of retinal function.
4. Congestive states in and about the eye.

In refractive and accommodative dysfunctions, we must consider the lens with its zonular fibers; the ciliary muscle which controls the tension of these zonular fibers and so regulates the curvature of the lens; the nerve supplying the ciliary muscle—its primary center, the adjoining and interconnected groups of motor cells, and their nerves and muscles which are associated in the act of accommodation.

To obtain continued clear vision, an eye must focus on the object so as to give a clear-cut retinal image at all times and at all distances. Moreover, in order to obtain binocular vision and stereopsis, the two eyes must be brought into focus at the same instant and at an identical position and level in order to have the images simultaneously focused on each macula.

People with hyperopia often have exceptionally good distant vision, yet this cannot occur unless an extra accommodative effort advances the point of focus from behind the eyeball to the retina where it belongs. Many eyes tolerate this strain and an added reading strain for years without difficulty. Sooner or later this extra effort of the ciliary muscle becomes intolerable and ocular headaches result, followed in time by a lessening of distant visual acuity. The tolerance for near work is always less than for distance, so reading is complained of first.

Eye headache in young people is more often due to astigmatism than any other cause, occurring up to 75 per cent in the accommodative types of eye-strain. Varying or unequal contraction of the ciliary muscle results in ciliary muscle fatigue, all in the effort to gain and maintain clear vision from the confusion of images common to these astigmatic eyes.

Ocular headaches are most common in hyperopic, mixed and myopic astigmatism, less common in hyperopia and are rare in pure myopia.

#### ACCOMMODATION

In presbyopia there is a loss of elasticity of the lens, the range of accommodation is diminished, and visual acuity for near is interfered with. The patient compensates by holding reading matter at a greater distance from his eyes, and by using a brighter reading light; but eventually efforts to maintain clear reading vision result in overtaxed

accommodation and headaches. Almost 40 per cent of presbyopes suffer from focusing headaches, growl at the telephone directory and the club menu, and in other ways qualify for that legion of "die-hards," who refuse to admit that they are in any way different at forty-five than at forty! Presbyopia usually occurs about forty-five in the emmetrope, somewhat earlier in the hyperope, and later in the myope.

#### OCULAR MOTILITY

In considering disturbances of ocular motility, we are dealing with an intricate system of extra-ocular muscles, motor nerves, and intracranial connections which result in an amazing coördination with each other, and with the requisite higher nerve centers. This system in health allows us free co-ordinated eye movements in all directions, and at the same time allows single simultaneous binocular perception.

This neuromuscular system is subject to fatigue, congenital variations and disturbances from the body as a whole. We must remember that an average healthy individual uses his eyes about sixteen hours every day, and that for hours at a stretch he is able to maintain perfect focus and muscle balance at the most exacting tasks without symptoms and without conscious effort.

It is not remarkable, in the presence of ill health, refractive errors, overwork, and handicaps—such as poor print, defective lighting, or moving objects, as in reading on a train—that limits of endurance of this delicate system are reached and symptoms appear, frequently expressed as headaches or eye fatigue. Treatment depends upon the cause and includes a careful analysis of the patient's habits and state of health, in addition to whatever the eyes may require.

#### TOLERANCE IN EYE FUNCTION

Before leaving the subject of accommodation and muscle balance, I should like to emphasize some of the wide variations that we see in eye patients. The human body possesses, to a varying degree, a quality which we may call tolerance. We see this in the capacity for physical exertion and in mental effort, in the ability to stand pain and to disregard distracting auditory or visual stimuli. Certain eyes are upset by an almost negligible refractive error, others function happily in spite of glasses which are incorrect, or are so far out of adjustment that spherical, cylindrical, and even prismatic errors are introduced.

The tolerance of accommodation and muscle balance varies remarkably according to the body state. Certain children show varying degrees of cross-eye when sick or tired. Indeed, mothers tell us that measles or whooping cough were the cause of their children's strabismus, when we know that the illness only precipitated a tendency which had been present before.

A number of doctors of my acquaintance develop a widely divergent eye after the fourth cocktail! Their muscle balance is ordinarily maintained by a little extra innervation of their internal recti, but alcohol temporarily upsets this adjustment.

## OTHER FACTORS

Failure of accommodation in hyperopia, astigmatism and presbyopia frequently occurs after accident or injury which reduces general body tone to a low degree. We often meet this in industrial work. Glasses give relief and are worn during convalescence; after which, perhaps, they may be discarded when an accommodation reserve has been once more established.

It is probable that retinal function in the normal eye is capable of carrying on indefinitely under a uniform, steady, average intensity of illumination, such as daylight, with natural resting periods. However, in our hectic everyday existence, great extremes of light are encountered. People drive automobiles all day and far into the night. They see three-hour movie shows on top of a hard day at the office, or expose themselves for long periods at the beach or in boats. Many eyes cannot tolerate such wear and tear, and develop fatigue and ocular headaches. It is also to be remembered that, after the age of forty, the eyes lose a certain degree of adaptation to extremes of illumination.

The congested sick eye, as in conjunctivitis, keratitis, iritis, scleritis, glaucoma or retinitis, resents both light and effort. Fatigue and headaches often follow.

In the various headaches not found to be due to ocular inflammation or defects, one finds, in a fair percentage of cases, signs in and about the eye which may help in a proper diagnosis of the underlying systemic cause. I refer to ocular palsies, peripheral field defects, central scotomas, nerve atrophy, optic neuritis or choked disc, and retinitis due to diabetes, nephritis, lues, or other constitutional disease.

In closing, let me say that every systematic search for the cause of headaches should at least include a careful eye history. If positive or doubtful, an eye examination should be made. Should the examination yield only negative findings, it is still important in the process of diagnosis by exclusion.

490 Post Street.

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## HEADACHES: FROM THE POINT OF VIEW OF THE OTOLARYNGOLOGIST\*

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IT is my intention strictly to limit this discussion in the symposium on headache to the field of ear, nose, and throat, and associated structures, intentionally leaving out the numerous causes which have been, and will be discussed by other participants in the program.

Perhaps no other one symptom is more generally and commonly found, whether it be from direct

cause in the head or from general constitutional disturbances, than headache. Indeed, it is almost the first symptom a person has, whether the ensuing complaint be of simple nature or more complicated; and the characteristics of the headache may frequently give the clue to a final diagnosis. Nor, indeed, should too much importance be given this one symptom.

While, then, cephalalgia is of such common symptomatology, there are several important points that should be determined in the history of the complaint:

1. Location, radiation, depth.
2. Duration.
3. Frequency.
4. Intensity.
5. Character.
6. Progress.
7. Associated symptoms.

Of the foregoing points, I shall discuss, as I proceed, the causes, diseases, and location.

## CAUSES

Cephalalgia may be local or general, and may arise from conditions, intracranial, pericranial, or extracranial, and may occur independently of the existence of any specific disease, or be a constant symptom of a particular disease. Again, it is not infrequent that there is a total absence in certain diseases wherein we might expect headache as one of the characteristic symptoms.

While the division of headache on the basis of location may not be entirely satisfactory on account of overlapping, nevertheless it is true that many headaches in certain diseases have a definite site of predilection, and that combinations of several forms of headache, due to coexistence of their causes, may occur in patients.

For the sake of convenience, I shall divide the site of the headache into the following divisional areas: (1) Frontal; (2) Lateral; (3) Occipital; (4) Vertex. As previously stated, I shall confine my remarks to those conditions directly attributable to my specialty, leaving out those which may give pain in the same area.

## FRONTAL HEADACHE

Headache in this region may be constant or intermittent, or varying in intensity and periodicity.

Here we have numerous conditions presenting this area of pain. The first is a simple catarrhal frontal sinusitis. The pain is usually limited to the glabella, or supra-orbital region, but may affect the whole frontal region on one or both sides. This can be explained by the anatomical structure of the sinus which may extend well beyond the midline, and thus involve the other side. There is a marked periodicity of pain, usually occurring mid-morning (ten o'clock) to midafternoon (two to four o'clock), and suddenly ceasing, leaving the patient comfortable, and even with a feeling of well-being. Stooping or bending always exaggerates the pain. Naturally, other symptoms of nasal discharge, such as tenderness beneath the brow (Ewing's point), opacity on transillumination, and x-ray occur.

\* Read before the Section on Eye, Ear, Nose, and Throat of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.



In cases of empyema of the frontal sinus, pain and headache are the predominating symptoms, varying in intensity from severe radiating lancinating type to one of dull, pressure-like sensation (browache), and found usually in the supra-orbital region, root of nose, forehead, top of the head, or limited to one side. This is of a neuralgic type and worse upon arising in the morning.

Again other symptoms are present which I shall disregard. Deviation of the septum, high up, causing pressure and obstruction, growth of polypi, hypertrophied turbinates, acute rhinitis with its congestion, cause headache in the nasofrontal region.

#### IN ETHMOIDITIS

There is usually pain between the eyes, with a feeling of weight in the vertex, and tenderness over the inner canthus.

In passing this, the frontal area of headache, I will mention only several other allied causes, such as trigeminal neuralgia, supra-orbital neuralgia, iodids, coryza, sore throat, ptialism, adenoids, and maxillary sinusitis.

Nor are we to overlook involvement, such as sinus thrombosis plus other cerebral conditions, not discussed here. The foregoing are located principally in the frontal area, so now we approach headache in the lateral area.

Migraine, trigeminal neuralgia, dental caries, I leave to those other members for consideration, as they involve more neurologic and dental discussion than herein provided.

In acute mastoiditis the pain may be localized to the side involved, or may extend over to the opposite side, usually behind the ear; while in otitis media the pain is deep in the ear, or in the region of the emissary mastoid vein. In the cerebral affections the pain is in the head itself, and most severe during the night, and during the early stages of the process and in the temporal region above the ear, due to irritation of the dura. In case of sinus thrombosis, headache severe enough to be complained of is significant of meningeal irritation due to phlebitis or meningitis; while in perisinus abscess the pain is behind the mastoid (Griesinger's sign), and may be due to phlebitis of the emissary mastoid vein.

Among less common causes of headache in the lateral region may be enumerated the following: ceruminosis, maxillary sinusitis, adenoids, cranial caries, cancer of tongue and neck, and polypi, etc.

Headache in the occipital region may be due, among other conditions, to adenoids, basal tongue lesions, and tumors.

#### SPHENOIDAL SINUSITIS

The pain is a common symptom and may be the only one of the disease where other visible signs are obscure. It is usually occipital or deep in the center of the head; or, again, it may occur in the temporal, postauricular region, or middle ear, with a feeling of weight and pressure in the vertex.

Numerous other causes have this occipital area as a point of pain, resolving themselves in varying

entities throughout the general system, and intracranial conditions as well as the various neuroses.

Headaches located in the vertex, usually found in neurotic patients and of characteristic type, are less frequent there than in other locations, although they may be associated with sphenoid sinusitis.

Thus far I have endeavored to enumerate the various sites of headache, and a few of the specific causes as related to the ear, nose, and throat.

So-called reflex pain, direct pressure, either by tumor mass or edema, whether bony tissue or soft tissue, or by stretching of the nerve in an inflamed or infected area, syphilis, tuberculosis, malignancies, growths—all play parts in causing headaches.

Neuralgia, or nonsuppurative nasal headache, include those pains about the head and face which are subjective symptoms of nonsuppurative changes in the walls of the nose or paranasal cells. They may vary in recurrence, constancy, severity, and durability. The objective changes in the affected tissue may be characterized as hyperplasia.

In this group are included vacuum frontal headache, syndrome of nasal ganglion neurosis of Sluder, hyperplastic postethmoiditis and sphenoiditis, and nasociliary neuralgia, usually found commonly in repeated attacks of cold in the head, wherein, due to congestion and swelling of mucous membrane, the ostia of the paranasal sinuses are blocked or narrowed.

#### VACUUM FRONTAL HEADACHE

Defined as a low-grade, unending headache, caused by closure of the frontal sinuses, without nasal symptoms, *i. e.*, anatomic variations in the formation of the nasofrontal duct, whether in the formation of the infundibulum, large ethmoid cell, or bullae, etc. This blocking creates a vacuum in the sinus, causing hyperemia in the sinus walls, swelling, and pain and tenderness or pressure.

*Nasal (Sphenopalatine) Ganglion Neurosis Syndrome* is a group of nervous phenomena caused by an inflammation of the nasal ganglion. It is manifested by a lower-half headache, involving the root of the nose, eyes, temple, zygoma, ear, mastoid, and occiput.

The nasal ganglion belongs to the involuntary nervous system, and lies in the pterygopalatine fossa. There are two roots—a sensory, and a motor and sympathetic root. The sensory root consists of the sphenopalatine nerves, which give off a few fibers to the nasal ganglion. The motor and sympathetic is the Vidian nerve, with its ramifications. For details of the intricate anatomy of this ganglion, let me refer you to the splendid book by Sluder, "Nasal Neurology," as time does not permit details here.

The location of this ganglion in the bony wall of the nose in the vicinity of the sphenopalatine foramen, just below the mucosa, lends itself to ready involvement, in case of the postethmoidal and sphenoidal suppuration and inflammations, and by extension from the nose proper.

The symptoms of nasal ganglion neuroses may be the neuralgic and sympathetic syndromes. Following an attack of coryza, rhinitis, or swelling of the posterior nares, pain at root of the nose, teeth

(upper), jaw, ear, face, mastoid, and extending to occiput, even to shoulder and arm, may be experienced. There may be a feeling of stiffness and aching throat, as well as other symptoms and in other distributions.

The sympathetic syndrome may not be manifested. There may be a vasomotor-secretory phenomenon: sneezing, congestion, and thin secretion, etc.

So much for this particular syndrome, with its variations: again, for details, I refer you to the standard texts.

#### HYPERPLASTIC POSTETHMOIDITIS

The pain here is in the distribution of the trigeminal nerve and its branches, and in the Vidian nerve (pterygoidis canalis) similar to the suppurative type of postethmoid and sphenoid involvement; but in this case, due to hyperplastic changes in those sinuses, brought about by repeated attacks of inflammation, causing the above hyperplasia. The thickening may extend into the nasal cavity, involving tissue in the neighborhood of the nerve trunks, submucous tissue and bone.

In this condition there is a dull recurring headache, heavy in character, usually in the occiput, and this may be varied, depending upon the nerve trunks impinged upon and at times indistinguishable from migraine. The optic nerves may be involved. When the first and second branch of the trigeminus are involved, the pain simulates frontal or maxillary involvement. And again, when all nerves of the ganglion are involved, headache typical of neuralgia of the nasal ganglion is produced.

#### ANTERIOR ETHMOIDAL (NASOCILIARY) NEURALGIA

This specific type of pain is localized in the small area bounded by the supraciliary ridge, supra-orbital notch and nasal bone, and this is the point the patient usually describes, although it may extend in any direction and, frequently, on the bridge of the nose, so that glasses are uncomfortable.

Owing to the location and distribution of the nasociliary nerves, swelling in the uppermost anterior nasal mucous membrane, causing pressure or inflammation, produces pain and discomfort. This pain must be differentiated from the pain of both vacuum and suppurative frontal sinusitis, ethmoiditis, supra-orbital neuralgia and pain originating in the sphenopalatine ganglion, as by cocaineizing the area involved, with relief of the pain.

Mention will be made, but briefly, of the headache found in otic complication, the first being the type of pain in sinus involvement (thrombophlebitis). Needless to say, other symptoms being present, when severe headache is felt, it usually means meningeal irritation from phlebitis or meningitis. Pain is severe and fairly constant; while in brain abscess, in the acute stage, the pain is severe and limited to the side affected. It is interesting to note that the headache and vomiting in brain abscess, the result of a chronic otitis, may be attributed by the patient to a digestive disturbance. This, of course, must be closely examined so as not to be misled in the final diagnosis.

450 Sutter Street.

## UNILATERAL CEREBRAL DOMINANCE\*

### A CONSIDERATION OF SOME OF ITS MANIFESTATIONS

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THIS paper is being presented with a view to giving a conception of unilateral cerebral dominance and some of the factors contributing to its development. The fact that one hemisphere takes the major rôle in the performance of complex cerebral function is well established, and is more or less generally accepted. The reasons why the major hemisphere is usually the left are not known, and in the past many ingenious explanations have been offered, but none has been entirely satisfactory. We know, however, that the tendency to right-handedness has always been a trait of man and that it is present to a degree in some of the higher apes.

#### GENERAL CEREBRAL FUNCTIONS

It is needless to discuss in detail the general cerebral functions which are more or less symmetrically distributed, but I shall consider them briefly.

*Frontal Lobes.*—The frontal lobes are commonly separated into three divisions. The portion situated most anteriorly is termed the prefrontal area, and with unilateral lesions there occurs very little in the way of symptoms. However, when the prefrontal areas are affected bilaterally the patient shows some disturbance of personality, judgment, discrimination and, in general, is unable to synthesize simple thought processes into more complex structures. The premotor and motor areas, which lie posterior to the prefrontal area in the order named, are concerned with motor functions, and lesions affecting them result in disturbances of motor function of the opposite side of the body. Lesions of the premotor area result in spastic motor weakness with forced grasping and groping, while lesions of the motor area result in flaccid motor phenomena.

*Parietal Lobes.*—The parietal lobes are concerned with the interpretation of general sensory impressions from the thalamus, which is the primary cerebral center of general sensory perception. Thus, lesions of the thalamus may result in complete loss of sensation on the opposite side of the body, while a disturbance in the parietal cortex or subcortex may result in an inability to interpret the perceived sensory stimuli. The cortical area for recognition of sensation is large and not only includes the postcentral cortex of each side and a large portion of the parietal cortex, but may also extend into the adjacent portion of the precentral cortex.

*Occipital Lobes.*—The occipital lobes are concerned with the reception and interpretation of visual sensations. The calcarine area on each side is the cortical center for primary visual perception, while the adjacent cortical areas are utilized for the recognition and recall of visual images. Thus,

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lesions affecting the calcarine area result in degrees of blindness, while lesions of the adjacent cortical areas, namely, area 18 and 19 of Brodmann, cause symptoms only if they affect the major side or are bilateral.

*Temporal Lobes.*—The temporal lobes are concerned with the perception and interpretation of auditory sensations. The transverse posterior gyri of Heschl are the primary cortical perception centers, while the adjacent cortical areas (Wernicke's zone) are concerned with the recognition, interpretation, and recall of auditory sensations. Only bilateral destruction of the primary cortical perception centers will result in deafness. Unilateral lesions affecting the adjacent cortical areas will result, if on the major side, in inability to recognize what is heard.

#### ONTOGENETIC DEVELOPMENT OF UNILATERAL DOMINANCE

In considering the clinical manifestations of unilateral cerebral dominance, it seems worth while to discuss the ontogenetic development of unilateral dominance. Unquestionably each child carries an inherited tendency to develop the predominant use either of the right or left hemisphere. This is manifested by the preferential use of one of the upper extremities, usually the right, before he is a year old. According to Orton,<sup>1</sup> "This is borne out by genetic studies of the occurrence of handedness in families and by the persistent appearance of left-handed individuals in all races in spite of many generations of directive training and strong social pressures toward the right hand, and by the relative proportion of left- and right-handedness in the general population which conforms quite closely to that which would be expected if the tendency toward right-handedness serves as a dominant hereditary factor in the Mendelian sense." The development of eyedness has been conceived by some to precede handedness and to be important in its development. It seems to me that both are inherited factors and that handedness, being so much more subject to clinical evaluation, is of more importance.

The inherited tendency to predominant use of the right hand naturally early led to its preferential use in the manipulation of weapons and tools, later in the development of drawing and of primitive language. As the complexities of language increased so did the use of the right upper extremity, and of the visual and auditory functions of language as well.

#### THEORY OF NEUROBIOTAXIS

The concept of unilateral cerebral dominance is nicely explained by utilizing the theory of neurobiotaxis as developed by Kappers.<sup>2</sup> According to this theory the nerve cell is polarized during activity, and the axone grows away from the region of the stimulation while the dendrite grows toward a source of stimulation outside the cell. Later the cell body itself begins to shift toward the source of excitation. All neurons utilized for any given act are polarized simultaneously and, consequently, tend to develop dendritic connections and later a grouping of cells associated with this act.

According to this theory :

The positions and relations of the dendrites and cell bodies of the neurons of the central nervous system are regulated in conformity with that law of psychology which has long been known as the law of association. According to this law, simultaneousness of excitations or their successive occurrence is the leading factor. The early work on motor cells and their dendrites led to a more complete study of the course of the neuraxes, and it was supposed that electric conditions (potential differences) existing between the regions where the fibers begin and where they terminate may explain this law, namely, that the potential relationship between the two regions always underlies the establishment of connections between such regions."

Kappers formulated the following laws in regard to neurobiotaxis :

1. If several centers of stimulation are present in the nervous system, the outgrowth of the chief dendrites, and eventually the shifting of cells, takes place in the direction whence the greatest number of stimulations reach the cell.
2. This outgrowth or shifting, however, only takes place between stimultatively correlated centers.
3. Temporarily correlated excitation plays a part also in establishing the connections of the neuraxes.

The comparative anatomy of the fiber tracts of the central nervous system gives much evidence in support of these laws as leading principles in the formation of tracts. Certainly, they seem to explain a great deal regarding the development of unilateral cerebral dominance in the performance of complex cerebral functions.

#### APRAXIA

The manifestations of unilateral cerebral dominance are apparent in both motor and sensory fields, but are most marked in functions associated with language.

Evidence indicating unilateral motor dominance is shown by apraxia resulting from a lesion on the major side. Apraxia is the inability to perform certain skilled movements voluntarily in the absence of any motor paralysis, incoördination or dementia.<sup>3</sup> In considering the development of an individual it may be assumed that there is an inherited dominance of the left hemisphere for simple motor functions. If the individual is allowed to develop naturally, the right hand will obviously take the lead in the performance of the increasingly more complicated functions. As a result there will be developed by repetition of movements various patterns of reaction in the premotor areas of both hemispheres, with the left being dominant. Thus a lesion affecting the left premotor area will result not in paralysis but in apraxia. This will be bilateral if the lesion interrupts the connections with both motor areas, and unilateral if there is an interruption of the pathways from the major premotor cortex to the associated areas on the opposite side of the brain. Ordinarily, a lesion on the major side results in paralysis on the opposite side of the body, so that the apraxia is only apparent ipsilaterally. If the lesion affects the group of cells concerned with the motor pattern of speech, Broca's aphasia results. Likewise, one may explain the appearance of an isolated agraphia. Furthermore, the region of the left angular or supramarginal gyrus is the area where sensory impulses are integrated, so that a large lesion in this area may result in apraxia of both sides of the body because the

ideational plan of motor activity does not reach the major premotor area.

Liepmann, beginning in 1900, gave us the modern concept of apraxia, which has changed little since his excellent work. The following classification of apraxia is now commonly accepted.

Limb kinetic apraxia is observed to result from a disturbance of the motor patterns in or near the motor area, and may result from a lesion not sufficient to cause paralysis. It is manifested by inability to perform skilled movements. The sequence and general form of the movements appear normal, but they are awkward, as if being done for the first time.

Sympathetic apraxia is due to lesions of the corpus callosum, which interfere with the influence of the left cerebrum in directing movements of the right side.

Ideokinetic apraxia is manifested by a total inability to perform an act or by performing some act which is not intended. Here the sequence of activity is normal up to and including the formation of the ideational plan, but the translation of the plan into movement is defective. When the apraxia is unilateral, the intact ideation is easily demonstrable; when bilateral, careful attention to the patient's behavior is necessary to distinguish this type from ideational apraxia. It follows a large lesion of the left posterior parietal region.

Ideational apraxia is characterized by correctness of the individual acts or elements of an act, but a failure to apply these elements because of a faulty or absent ideational plan. It is due, not to a focal lesion but to a diffuse disturbance of association pathways.

#### SENSORY MANIFESTATIONS

The sensory manifestations of unilateral dominance, demonstrated by agnosias resulting from unilateral lesions, are found in the disturbances of recognition of the various sensory stimuli, which include the visual agnosias, the acoustic agnosias, and probably some of the disturbances of body scheme.

It was previously stated that in the occipital and temporal lobes the cortical areas adjacent to the primary perception centers were utilized in the recognition, recall and interpretation of sensory perceptions. In lower animals, where this is probably limited to orientation in space and in the visual recognition of objects and auditory recognition of sound, these functions are probably symmetrically represented bilaterally. In man, who has an inherited tendency to right-handedness and in whom there has been, in addition, the development and elaboration of language which has utilized and reinforced this tendency, is it not logical to assume that, according to the theory of neurobiotaxis, there has been a grouping of cells associated with these functions in the major hemisphere? If this is correct—as has been more or less verified by a number of cases noted in the literature—the major hemisphere would be dominant not only for the functions of language but also, to a less degree, for the more primitive functions of recognition of sounds, objects, and of orientation in space. Thus, the

impulses from both hemispheres must reach the major cortex for interpretation.

In lesions of the occipital cortex adjacent to the calcarine area on the major side, there occur optical disorientation in space, visual agnosia for objects and, as the lesion approaches the angular gyrus, visual agnosia for symbols.<sup>4</sup> These will occur only if a unilateral lesion destroys the cortical area concerned with these functions on the major side, or interferes with the fibers from the identical cortical area on the minor side and the calcarine area on the major side.

The auditory interpretative functions are less dominantly represented than are the visual interpretative functions, so that lesions of the cortical area adjacent to the primary auditory cortical perception center on the major side are characterized mainly by disturbances of language function, namely, acoustic verbal agnosia and agraphia. A subcortical lesion will result in acoustic verbal agnosia alone. The closer the lesion approaches the angular gyrus the more complex the symptomatology.

Lesions in the posterior parietal region on the major side give rise to a disturbance of body scheme which is represented on both sides of the body in contrast to the type of disturbance of body scheme resulting from a lesion in the minor parietal lobe, which is referred to the opposite side of the body only. Gerstmann's syndrome of finger agnosia, agraphia, confusion of right and left and acalculia<sup>5</sup> is probably due to a lesion at the border of the angular gyrus and the second occipital convolution on the major side, and a focal lesion responsible for each element has been suggested by Schilder.<sup>6</sup> Unilateral disturbances of body scheme, which are apparently due to a lesion separating the thalamus from the parietal lobe on the minor side, are much more common and may be a simple forgetting of the left side of the body, a denial of an existing hemiplegia,<sup>7</sup> or a delusion of absence of the affected side.

The explanation for these symptoms is as yet not clear. It may be that, as various authors have stated, "on the major side the parieto-occipital region is a correlation area in which the hand is specifically converted from an organ to a tool in the service of the body, as a whole. There is in the same region a laterality-converting area, a lesion of which causes loss of sense of right and left, and even sense of direction." The disturbance caused by a lesion of the minor hemisphere is probably due to the combination of a lowering of the patient's general mental faculties and the failure of general sensation to reach consciousness.

#### CURRENT CONCEPTIONS

The current conception of unilateral cerebral dominance depends upon information obtained largely by a study of language disturbances due to focal lesions of the brain. The improvement in neurosurgical technique and the advent of lobectomy in recent years have provided considerable information, especially regarding the functions of the minor hemisphere which in the past have been largely ignored, and which have been found to



vary considerably. It is probable that there is a striking variation in the strength of the hereditary tendency to unilateral cerebral dominance and that this may be either a very strong tendency to dominance of the left hemisphere, or of the right hemisphere, with variable grading between. Orton has expressed this idea: "The occurrence of a group of children who exhibit little bent toward either the right- or left-hand pattern in spite of the usual exposure to training, and of another group who start with a slight preference for the left but even with the most moderate pressure are led to shift to the right, is, we believe, strong evidence that this group of mixed, crossed, and undecided patterns indicates the presence of an inherent variable here, and our findings in this selected group of children seem to be explicable only on the existence of a graded series of sidedness preference, extending all the way from very strongly right-sided individuals to very strongly left-sided ones, and with all degrees of intermingling in between. This is what might be anticipated as the result of intergrading between two genetic factors leading respectively to left- and right-sidedness." Usually the dominance is for the entire hemisphere, but occasionally the major occipital lobe may be contralateral.

It is possible to modify greatly any individual's inherited tendencies by training so that a left-brained person may be converted into a right-brained individual. The age at which this training takes place and, of course, the intensity of the training, have a great deal to do with this transference of dominance.

It is a well-known fact that organic lesions of the major hemisphere in children cause very little, if any, disturbance of language function. This is probably due to the fact that dominance in children is practically limited to motor functions and that unilateral dominance as regards language function has not yet been developed or reinforced by training. By systematic training it is possible to transfer the dominance of the portion of the brain concerned with specific language functions from one side to the other in many individuals up to the age of ten or twelve years.<sup>9</sup> After this age considerable transfer is possible, but it is never so complete.<sup>8</sup> Thus, aphasic manifestations due to cerebral lesions in children are very mild and transient, while those in adults are permanent to some degree.

The variability in hereditary factors leading to unilateral cerebral dominance, and the great variation in training to which each individual is subjected, explain, to a large degree, the variation in symptoms due to specific lesions of the so-called language centers. These are obviously due to the inherent capacities of the right hemisphere in language function. In many cases improvement has been noted in adults after a destructive lesion of the major cortex. Might this not be explained by a strengthening of these inherited neurograms by the process of neurobiotaxis?

#### IN CONCLUSION

Unilateral cerebral dominance is an inherent trait characteristic of man. The tendency to left-

brainedness or right-handedness may be a dominant hereditary factor in the Mendelian sense.

Training tends to reinforce and even increase this tendency. Systematic and persistent training directed so as to develop the inherent capacities of the minor hemisphere may result in a transference of dominance to this hemisphere if applied early in life. Systematic training in the adult, with aphasia due to an organic lesion of the brain, may give improvement as a result of reinforcing the inherent capacities of the minor hemisphere, but not to the degree possible in children.

The theory of neurobiotaxis, as developed by Kappers, appears to be of great significance in explaining the above phenomena.

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#### GALL-BLADDER: ITS RELATION TO CHRONIC ARTHRITIS OF UNCERTAIN ETIOLOGY\*

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THE part the biliary tract plays as a direct or indirect factor in the problem of chronic arthritis has been given little consideration. The literature on the subject is remarkable for its paucity. It is reported, usually, from the surgical point of view, as another area of focal infection.<sup>1</sup>

The liver and its appendage, the gall-bladder, plays a complex rôle in the well-being of a normal individual. We know chronic arthritis is a generalized, systemic disease which mirrors its effect in all systems by a physiologic depression or modification of function. Therefore, I feel we have cause to inquire into the relationship of a patient suffering from chronic arthritis of uncertain origin and gall-bladder function.

In this study, the ordinary type of gall-bladder visualization test was used. Its limitations are appreciated and the factors that modify it were con-

\* Read before the Section on General Medicine of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

sidered on reading the films. However, if properly interpreted, it is a generally accepted measure.

Beilin, in a publication this year, concluded: "Cholecystography has proved the most valuable examination in a diagnosis of gall-bladder disease."<sup>2</sup>

#### TEST PROCEDURE

This type of test is available in most localities. Sodium tetraiodophenolphthalein was administered in the usual, accepted manner; that is, four grams orally of the soluble iodophthalein the evening preceding the x-ray study. The patient's preparation, reception, and care are of common routine in the ordinary roentgenologic practice.

#### CLINICAL MATERIAL FOR THE STUDY

The subjects used in this test are broadly classified as chronic arthritics of unknown etiology. Excluded were the arthralgias and those cases that were accompanied by gout, gonorrhea, syphilis, or any other specific infection. The patients were not selected, but were studied as they appeared in the arthritis clinic in the ordinary course of events. All x-rays in this series were read by the same roentgenologist.

These seventy-one cases were accumulated over a year's time, and the presence of the disease existed in every one of them over a period of six months; while, in the majority, the disease had been present for years.

In dividing the group according to sexes, we find the female predominating at a ratio of four to one; that is, fifty-eight females and thirteen males. This ratio is not out of keeping with statistics concerning cholecystitis and arthritis, in which there is a preponderance of females.

#### CLASSIFICATIONS

The classification of arthritis used in this series is as follows:

In the group known as Type I, I have included all those who are otherwise known clinically as atrophic or infectious, pathologically as proliferative, and by the English as rheumatoid.

In the group known as Type II, I have included those clinically known as hypertrophic, pathologically as degenerative, and with the English terminology, osteo-arthritis.

In the group known as Type III, I have included all those cases which present a mixture of the above two types with, usually, one or the other type predominating in the clinical picture.

*Age Groupings.*—Dividing these patients up into age groupings, we find they distribute themselves as follows:

- Between the years 20 to 30—2 patients.
- Between the years 20 to 40—9 patients.
- Between the years 40 to 50—17 patients.
- Between the years 50 to 60—24 patients.
- Between the years 60 to 70—9 patients.
- Between the years 70 to 80—5 patients.

The oldest patient was a woman of seventy-nine years, who was classified as Type II, and the youngest was a male, twenty-six years of age, classified as Type I.

Dividing these patients into groups according to the classification given above, their distribution is relatively equal. That is, there are twenty-five cases in Type I, twenty-one cases in Type II, and twenty-five cases in Type III.

*Complications.*—The most common complication in the treatment was that clinical syndrome, menopause. It is also significant that "underweight" was the complication in only one case, while adiposity or definite excess weight was a complication in fourteen cases. One patient had mild diabetes. The other complications are of no great moment, and are common complications in the late-age groups such as we are dealing with.

#### FINDINGS WITH THE DYE TEST

In reviewing the seventy-one cases in this report, in relation to the function of the gall-bladder as measured by the dye test, we find it as follows:

*Twenty-five patients gave a normal x-ray finding.*

Ten patients, on examination and questioning, gave no gastro-intestinal complaints nor findings.

Fifteen patients complained of one or more of the usual symptoms of low-grade indigestion, such as belching, bloating, flatulence, or constipation.

*Forty-six patients were reported with pathologic findings on x-ray visualization.* That is, they were reported with stones, or no visualization, or there was a marked variation noted as to filling, concentration, or emptying, from the accepted normal.

Four of the forty-six patients were reported as having gall-stones. One of these four patients had a negative clinical history.

Six patients were reported as having no visualization of the gall-bladder. Three of these six patients whose gall-bladders did not react to the dye had a negative clinical history.

The remaining thirty-six patients who presented *atypical findings* showed twelve who had negative clinical histories in relation to their gastro-intestinal tracts. These clinical histories are not out of keeping with a report of 1926 of 612 routine post-mortem examinations. Here evidence of cholecystitis was found in 66 per cent of the cases in which only 8 per cent had a primary diagnosis of cholecystitis.

Those reported as having pathologic findings were subdivided according to age:

- 20 to 30 years—1 out of 2 patients.
- 30 to 40 years—7 out of 9 patients.
- 40 to 50 years—9 out of 17 patients.
- 50 to 60 years—15 out of 29 patients.
- 60 to 70 years—9 out of 9 patients.
- 70 to 80 years—5 out of 5 patients.

The twenty-five patients reported with *normal x-ray findings* were grouped:

- 12 were in Group I (rheumatoid).
- 8 were in Group II (osteo-arthritis).
- 5 were in Group III (mixed type).

The forty-six patients reported with *positive findings* were classified:

- 13 were in Group I.
- 13 were in Group II.
- 20 were in Group III.



## COMMENT

Seventy-one patients of arthritis were studied by the common method of x-ray visualization and divided themselves equally in the usual groups this disease tends to gravitate into when definitely established.

Sixty-four per cent of the patients were in the age group of 50 to 60 years.

Eighty-one per cent of the patients were female.

In a group of seventy-one patients, 64 per cent gave positive findings on x-ray study.

Sixteen, or 34.8 per cent, of the forty-six patients reported positive, gave a negative clinical history in relation to direct symptomatology from the gastro-intestinal system. This is where I feel the conclusions of the much-quoted article by Hartung and Steinbroker were in error. They selected thirty cases out of two hundred for study on the basis of positive history or physical findings; hence their conclusion, that the instance of pathology was the same as in the ordinary run of general medical admissions.<sup>4</sup>

In forty-six cases reported positive:

28.3 per cent were in Group I (rheumatoid).

28.3 per cent were in Group II (osteo-arthritis).

43.4 per cent were in Group III (mixed).

## IN CONCLUSION

Insufficiency of the gall-bladder is a frequent occurrence in the rheumatic syndrome.

Gall-bladder visualization, by the ordinary, accepted x-ray procedure, should be available in each diagnostic study of the treatment and supportive care of all individuals suffering from chronic arthritis of uncertain etiology.

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## ENDONASAL TEAR SAC OPERATION\*

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**S**URGICAL procedures for the relief of dacryocystitis, and of epiphora caused by an obstruction in the lacrimal system, are not new in the history of medicine. Galen leaves a record of an attempt to restore the flow of tears through the nose by boring a hole through the lacrimal bone, following this with the use of cautery to produce a fistula. And, lest we be too impressed with the progress of medicine, procedures not too far removed from Galen's are in use at present in certain hands, with the same intention.

Before proceeding to a consideration of what has been attempted in tear-sac surgery, and of what can

be expected from these various maneuvers, it is well to review briefly the anatomy of the region in question.

## ANATOMY OF THE REGION

The bony fossa containing the lacrimal sac is made up of the lacrimal bone, which is comparatively thin, and the posterior lip of the ascending process of the superior maxilla, which is comparatively thick and, at times, formidably so. The bony fossa containing the lacrimal duct is made up of the same two elements, together with a small process from the inferior turbinate at its lower part. The component parts of the membranous lacrimal apparatus are the puncta, the canaliculi, the sac and the duct. Because of its importance in any consideration of an external operation, mention should be made of the fact that the punctum is imbedded in, and the canaliculus runs through, the orbicularis muscle. And, because of its importance in any consideration of an endonasal or an external operation, mention should also be made of the fact that anterior ethmoid cells, a marked deviation of the nasal septum, enlargement of the anterior tip of the middle turbinate, and even abnormalities of the inferior turbinate, may affect the lacrimal apparatus. The inferior turbinate is seldom mentioned in a discussion of this question; but in one case, which was referred to me for an endonasal tear sac operation for the relief of epiphora, examination of the nose revealed the presence of polypoid changes along the inferior and lateral aspects of the inferior turbinate. Removal caused a complete cessation of the tearing, without additional surgery.

## PHYSIOLOGY AND PATHOLOGY

In view of the almost universal agreement that the physiology of tear removal from the eye depends chiefly on the muscle action about the canaliculus, it would seem that slitting of the puncta should be dispensed with entirely, although, unfortunately, it is still occasionally done, with the almost invariable result that any subsequent attempt to relieve tearing is futile.

The pathological course of the production of chronic dacryocystitis is briefly as follows: obstruction—usually a result of pathological changes in the adjacent ethmoid cells, antrum, or turbinates—is followed by stagnation of secretion which offers a good field for the growth of bacteria, swelling of the mucous membrane and necrosis of the epithelium, with the subsequent formation of adhesions.

## DIAGNOSIS

The diagnosis of obstruction can be made when a reasonable number of attempts to irrigate the sac with the proper solutions fail to bring the fluid into the nose. Gentle dilatation of the puncta to permit of easy introduction of the tip of the irrigating syringe is permissible, but forcible probing is to be warned against. A further point of diagnosis, however, is most important, *i. e.*, the determination of the site of the obstruction, for if it occurs between the puncta and the sac, obviously no procedure intending to establish a new passageway for the emptying of tears from the sac into the nose will be successful. If this point cannot be settled other-

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wise, the instillation of iodized oil, with subsequent x-rays, will be valuable.

When a diagnosis of actual obstruction, which cannot be relieved by conservative measures, has been made by the ophthalmologist, he must determine what further method is to be used to bring relief to the patient. The advantages and disadvantages of various methods so far suggested will now be considered.

#### THERAPEUTIC PROCEDURES

Repeated probing of the nasal duct has been discarded generally, and fortunately, for the chance of even greater injury by this form of treatment is ever present, particularly in the presence of infection. Probing is justified in the case of obstruction in infants; but here even gentle syringing is usually sufficient, inasmuch as the cause of the blockage is a fold of membrane or a tag of mucus, and frequently pressure over the lacrimal sac alone will relieve it.

Rapid dilatation of the nasal duct, although apparently efficacious at first in selected cases, usually fails to bring about a permanently beneficial result. Woolhouse, in England in 1650, produced an artificial duct into the nose and, to prevent its closing, introduced a gold cannula through the bone. Similar methods have been suggested again recently, with the use of cannulae of various materials; but the fact remains with us, and with the patient, that he is wearing a foreign body.

Stricturectomy, as described by Poulard, presents technical difficulties, is an entirely blind procedure, and offers great risk of recurrence of the obstruction.

Extirpation of the lacrimal sac was performed first by Berlin, in 1862, and has been the subject of much discussion since. Although it has the disadvantage of being an external operation with a facial scar, it does, when the sac is entirely removed, dispense with the infection, but the major objection still persists: it does not relieve the epiphora. The search for a more physiological method has resulted in the development of a number of operations.

In 1915, Mosher described an operation for the drainage of the lacrimal sac and nasal duct, but subsequently relinquished it in favor of his modification of a combined external and intranasal operation, described by Toti in 1904, and since modified by various workers, including Depuys-Du Temps and Bourget. These several procedures, although dispensing with the disadvantage of persistent epiphora, retain that of an external scar and incision in the muscle.

#### ENDONASAL OPERATIONS

In order to obviate these disadvantages, West, in 1926, described his endonasal operation, and at the same time a similar operation, for which priority was claimed, was described by Halle and Polyak. To these, numerous modifications have been appended, a notable one being that of Kofler, who suggested a transseptal approach in order to secure better vision of the operative field.

There seems to be little argument that the endonasal operation, if it cures the infection, the tearing,

and any other pathological process present (such as tumor masses, etc.) is definitely superior to any other method, in that it is on a strictly physiological basis—which should be the goal of good surgery in any part of the body—causes no external scarring, and protects the lacrimal apparatus from further trouble in the future. That it sterilizes the conjunctival sac from a bacteriological standpoint is claimed for it by West; and this contention is borne out in the great majority of cases by the work of Fraser of Edinburgh, reported by Henry.

The only objection, therefore, raised against the endonasal procedure which has seemed to have any validity is that it is technically difficult. But this is true of many other surgical procedures which are constantly used when they are demanded, and should not, in my opinion, be the basis of eschewing it or of substituting a less desirable operation. Its opponents state that it is a blind procedure; but that need not be, and when properly and meticulously performed it leads to uniformly good results. Certain physiological and pathological details should have particular attention, and they will be mentioned in the following brief description of the technique I use in the endonasal tear sac operation, which is followed by a condensed review of ten cases treated by this method. The cures reported are on the basis of three to six-year check-ups. The combined external and intranasal, or Toti-Mosher operation, has been used only once in the case of an eleven-year-old child who had had chronic dacryocystitis, since an abscess of the sac had been opened externally in infancy. A recent attack of measles had made the condition worse; but a complete cure was obtained by the combined method.

#### TECHNIQUE OF THE ENDONASAL OPERATION

If a high deviation of the nasal septum toward the affected eye exists, it is corrected by a submucous resection. Any infected or anteriorly placed ethmoid cells, impinging on the lacrimal fossa as determined by previous skiagrams, are exenterated. The anterior end of the middle turbinate is removed if it seems advisable to do so, and likewise the inferior turbinate is inflected medially if indicated and any polypoid portions of this structure are carefully removed.

Local anesthesia is ordinarily used, consisting of topical applications for the conjunctival sac and the nose, followed by injection of novocain externally and on the lateral wall of the nose at the agger nasi. After the posterior portion of the nasal passage has been plugged, a square window is removed from the mucous membrane just anterior to the head of the middle turbinate. Care should be taken to make this window sufficiently large to correspond to the bone to be removed and to the sac to be exposed, and the edges of the window should be smooth and free from tabs. I believe that lack of attention to these details has been the cause of the occasional failures which have condemned this method in some minds. After the mucous membrane window has been formed, a large flap is cut by making an incision upward from the middle turbinate to the ridge of the nose, then downward to the level of the inferior turbinate, and backward to the head of this structure. This flap, carefully dissected, is then turned medially and down. The bone, thus exposed, is removed by chisel and biting forceps in a wide area overlying the tear sac. A Bowman probe is then introduced through the canaliculus in order to push the tear sac into the nose, where it is easily grasped by a suitable tenaculum, and the medial wall is widely removed. Again care should be taken to see that no tabs are left at the cut edge. The lateral wall flap, which had been turned down, is now brought back into place, and a Bowman probe



passed through the canaliculus enters the nose through the wide mucous membrane window. The flap is held in place by one or two flat strips of ointment-coated packing.

#### COMMENT

The postoperative reaction is ordinarily negligible, and the postoperative care consists of removing the packing after forty-eight hours, after which the patient is seen every two or three days for several weeks for the removal of crusts, the control of any exuberant granulations, and ordinary cleansing of the nose. Occasionally, if the inflammation of the sack has resulted in unusually marked thickening of the walls, epiphora will persist for a time; and in such a case, gentle probing—and "gentle" should be underscored—is carried out.

Ten cases treated by the above method are reported herewith. One patient was a male aged thirty-one years, the others being females, whose ages varied from thirty-seven to sixty-eight years. The male patient had persistent tearing and a recurrent tumor mass at the inner angle of the right eye for five years, following an automobile accident in which his maxilla was fractured. He was completely cured of all subjective and objective symptoms following the operation.

Of the female patients, whose duration of symptoms ranged from six months to fifteen years, all were completely cured except two. One of these had very infrequent tearing of one or two drops when she was out in a cold wind, and the other had tearing only at occasional times when her nose was congested. A hyperplastic maxillary sinusitis was diagnosed in this patient on the same side, and operation was advised, but refused by the patient. In two instances, one of which was the case of the 68-year-old patient, the operation was performed preparatory to cataract operation, and the conjunctival sac was thus sterilized, so that the subsequent eye surgery could be performed.

#### SUMMARY

The development and diagnosis of chronic dacryocystitis are considered briefly, and the various surgical procedures which have been used in the past for its treatment are reviewed, and their respective advantages and disadvantages evaluated. A modified endonasal operation is described, with emphasis placed on those factors which are of greatest influence on the final result, stress being laid on the physiology of the region. The results of a series of cases treated by this method are presented.

#### IN CONCLUSION

If all factors in proper diagnosis and proper preparation have been utilized, the endonasal tear sac operation, carefully and correctly performed, is a more physiologically surgical procedure than others suggested for the treatment of chronic dacryocystitis. The results are as good, if not better, than those achieved by other methods. Although not simple from a technical standpoint, it is by no means formidable enough to warrant its rejection, particularly in view of its inherent advantages.

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## MENTAL HYGIENE AS A DEPARTMENT OF PUBLIC HEALTH ACTIVITY\*

REPORT OF A STUDY ON 9527 CASES

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AND

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FOR nearly twenty years there has been an active interest on the part of the Department of Public Health in San Francisco in the possibilities of preventive work in relation to the various problems of mental disorder and defect, and in connection with other difficulties of community adjustment such as delinquency. Beginning on a very small scale, and growing slowly and gradually in response to community demands for more and more service, there is at the present time a busy Division of Mental Hygiene concerned with varied aspects of preventive mental medicine.

#### SCOPE OF THE AGENCY

The work of an agency of this kind is of two distinct types: diagnosis, and diagnosis with social and psychologic treatment. There are many decisions necessary, which are almost of a purely diagnostic sort. There is need for a careful diagnosis of mental deficiency in many instances. Parents or relatives may wish to provide permanent care for feeble-minded children or for adults, who have been protected at home until the family resources no longer make possible adequate supervision and care. Then there is a definite proportion of delinquent children, whose social failure is due in a large measure to their complete inability to learn to conform to basic community requirements. Experience over many years has shown that only permanent control and protection will prevent a life of crime and misery for some of those children. There are also the families of wretchedly neglected children, where parents seem totally unable to give the kind of care which will make decent citizens. When the irresponsibility of one or both parents is due to clearly recognizable mental deficiency, it may become necessary to care for the parents, and to give to the children such homes as will provide them with a chance for developing in a wholesome environment. For this service the Mental Hygiene Division gives to the community agencies charged with caring for dependent and delinquent children such assistance as it can. Whole families are sometimes studied, so that the best plan can be made for all of their members. However, important as this part of the work is, it can be seen from the accompanying tables that only approximately one-fifth of the individuals coming to the Division for mental ratings belong to the group whose intellectual defect alone is sufficient to cause social failure. It is interesting to note at this point that mental deficiency, as defined by law,<sup>1</sup> includes not only intellectual defect

\* From the Department of Public Health, City and County of San Francisco.

<sup>1</sup> See Section 5250, Chapter 2, of Part I of Division VI of the Welfare and Institutions Code of the State of California, July 1, 1937.

TABLE 1.—*Intelligence Test Results of Patients Coming to the Division of Mental Hygiene (1918-1937) in Terms of Intelligence Quotients*

Feeble-minded .....	1,554
Idiot (I. Q. 0-24) .....	80
Imbecile (I. Q. 25-49) .....	281
Moron (I. Q. 50-69) .....	1,193
Borderline and dull .....	3,020
Borderline (I. Q. 70-79) .....	1,369
Dull normal (I. Q. 80-89) .....	1,651
Normal and superior .....	4,237
Normal (I. Q. 90-110) .....	3,180
Superior (I. Q. 111-119) .....	690
Very superior (I. Q. 120-up) .....	367
Not rated (psychotic, disturbed, infants, etc.) .....	716
Total .....	9,527

but also such degree of personality and character defect as renders individuals in need of “super-vision, control, and care, for their own welfare, or for the welfare of others, or for the welfare of the community.” While, on the one hand, many feeble-minded persons are so well-behaved that they may receive satisfactory care in good homes, with responsible parents, on the other hand, a certain number of individuals with fairly good intel-lectual capacity are so perverse and uncontrollable as to make their permanent care in an institution necessary. Occasionally such cases are referred by the courts, but more often the need for insti-tutional protection is recognized by their families, who seek assistance and advice with regard to their care.

RELATION TO SCHOOL DEPARTMENTS

Another task of the diagnostic kind is that repre-sented by a part of the coopération with the public school department, in connection with the study of physically handicapped children. Crippled chil-dren, for example, present a very wide range of mental capacities. Some, whose physical disabili-ties are due to brain injury or disease, are pro-nounced cases of mental deficiency as well. Others, though very seriously affected physically, may have really high mental capacity. All of these children require very special training, and it is extremely important to realize at as early an age as possible what kind of teaching is best adapted to each child. Then there are the deaf children. Only the child with good mental endowment can learn oral speech in the absence of hearing, and even for these chil-dren the task is one requiring years of patient train-ing. Dull and backward children might much better be taught simpler things rather than to spend years in trying to acquire speech unsuccessfully. Intelli-gence tests have at present been developed to the point where a reasonably accurate mental rating can be given, even though the child cannot hear a sound. Important observations have also been made with regard to certain of the children sent to the health classes because of malnutrition. Many of the frail or undernourished children make very satisfactory gains under the special régime ar-ranged for them, but some of them do not do at all well. It has been interesting to note that certain mentally deficient children do not improve physi-cally, no matter what type of care is given to them. In some instances, generalized defects, both physi-

cal and mental, seem to be responsible for the mal-nutrition.

CHILDREN OF BORDERLINE OR DULL  
NORMAL LEVELS

The children who are subnormal but of high grade, belonging to the borderline and dull normal levels, are perhaps the most difficult and discourag-ing problems which come to the Health Center. These children, dull enough to find competition difficult along most lines, but bright enough to realize and resent their limitations, often seem to develop a grudge against society as a whole. They can see no use in making efforts to conform, when conformity leaves them always in the unapproved, laggard group. They constitute the majority of the juvenile delinquents and of the more trouble-some school cases. Something can often be done to help them to a degree of legitimate satisfaction, but except in a planned social situation they will always lack what their more competent comrades can get easily, that is, success and approval. School training better adapted to their limited capacities, with an emphasis on simple, concrete instruction and drill which will tend to make them self-supporting, may in the future help this entire group.

SOURCES OF THE CLINICAL MATERIAL STUDIED

The following table indicates the sources from which cases have been referred to the Mental Hy-giene Division :

TABLE 2.—*Interested Agencies or Individuals*

Charitable child-caring agencies, etc. ....	1,607
Educational institutions .....	4,058
Hospitals or other medical sources .....	2,077
Juvenile courts .....	1,397
Relatives and other individuals .....	453
Other scattered sources .....	39

This table indicates the original source from which the case was referred. A notable num-ber of those first coming from educational insti-tutions have later been followed under the super-vision of child-caring agencies or in the Juvenile Court, but it is of considerable interest to note that by far the largest proportion first came to our centers from educational institutions, and another large group from hospitals and physicians. Many children and a number of families, first coming from other agencies, have later been supervised by the Court. Not infrequently, a home situation is so hopeless, and families are so irresponsible, that decent care for the children can only be obtained if the authority of the Court can be used either to supervise children in their own homes or in ex-treme cases to take the children out of the home.

GROUPINGS ACCORDING TO NATURE OF  
DISTURBANCE

The problems for which cases have been referred are many and varied. Their total number exceeds the actual number of children seen, since even at their first appearance, more than one problem is often reported. The table below is an analysis of



TABLE 3.—*Problems for Which Patients Were Referred*

Retardation in school .....	1,567
Behavior problems in school .....	1,262
For mental rating only .....	951
Mental deficiency, for commitment to Sonoma State Home .....	844
Problems based on physical condition .....	1,015
Nervous manifestations .....	701
Abnormal or peculiar mentality .....	122
Personality difficulties .....	902
Serious behavior problems .....	1,253
Minor behavior problems .....	1,975
Other reasons .....	569
<b>Total .....</b>	<b>11,161</b>

the reasons for which agencies or individuals first asked for a study of the child. A further explanation of some of the more comprehensive items in this table is of some interest. For example, Item 6 (nervous manifestations), includes such symptoms as speech defects, tics, night terrors, somnambulism, and general overactivity. Item 7 (abnormal or peculiar mentality) includes the serious disturbances often found to follow lethargic encephalitis in children, mental peculiarities developing after bad head injuries, and those baffling conditions which are usually included in the general term of psychopathic personality or constitutional inferiority. Item 8 (personality difficulties) includes a wide range of problems which have disturbed parents. To mention only a few of the complaints about the child, there is a variation from defiance, stubbornness and cruelty at one extreme, to shyness and sensitiveness, with definite feelings of insecurity and inferiority at the other. In the earlier years of mental-hygiene work with children, parents and agencies complained most often of those traits which made a child troublesome at home or elsewhere; at the present time, children are very often brought to the center because they cannot make friends, are solitary and oversensitive, or are socially awkward. This alone indicates a great advance in the attitude of parents toward the problems of children, since some of the most serious difficulties from the point of view of the child's chances of a normal social adjustment have to do with difficulties which do not at all tend to make the child hard to manage or control. Some of the serious behavior problems considered in Item 9 include such offenses as stealing, assault, fire-setting, running away from home, and sex offenses of various kinds. The minor behavior problems (Item 10) are those encountered most frequently in the small or untrained child. Here are included such difficulties as thumbsucking, bad eating habits, abnormal sleeping habits, negativism, and enuresis.

#### ETIOLOGIC FACTORS

The causes responsible for this host of problems, some very insignificant, others almost hopelessly baffling, are numerous. When the child is feeble-minded or suffering from organic brain disease, little can be expected in the way of a cure of the condition. Much may be done, however, to help those charged with the child's care to understand his limitations and to temper his environment so

TABLE 4.—*Ages of Cases Coming to the Health Center*

Under 3 years .....	502
3-5 years .....	992
6-12 years .....	4,167
13-18 years .....	3,035
19-25 years .....	231
26-40 years .....	332
Over 40 years .....	100
Age not known (psychotic, etc.) .....	68
<b>Total .....</b>	<b>9,527</b>

as to make allowance for his inability to make a good adjustment on his own part. On the other hand, many of the minor problems, even though they seem serious to the parent, readily respond to intelligent provision for the child. It is especially interesting to note that the best results do not, as a rule, come from specific treatment of the individual problems. Almost always there is something wrong with the child's daily life. The parents may be worried, or there may be justifiable jealousy of another child, or the home life may be too stimulating or exciting. These and many other situations, quite removed from the child's actual symptoms, may be responsible for his problem. Treatment, then, means a careful study of the entire life of the child and of his relations with all of his surroundings, in order to discover what factors are likely to be interfering with a normal attitude on his part. When those factors are found and removed, many problems disappear almost at once. This is true particularly of nervous manifestations of the functional sort. In cases where long-established, bad habits exist, such as persistent thumb-sucking, nail-biting, or enuresis, it is often possible to secure the child's interest and coöperation in breaking the habit. When there is intelligent coöperation in the home, and the child is of good intelligence, even serious difficulties disappear very promptly. It is generally agreed that most of the serious behavior problems have their origin in minor difficulties. For this reason it is satisfying to note that the largest number of complaints, for which children have been referred to the Center for care, fall in this group of minor difficulties. Table 4 shows the ages of the individuals coming to the Mental Hygiene Division for study.

The older cases are those coming for diagnosis as to eligibility for admission to the Sonoma State Home, or are parents of neglected children, or are patients referred by the hospitals in cases where mental deficiency is suspected. The greater amount of really preventive work is probably done with those children who are not more than twelve years old. It is, of course, very necessary that as accurate a diagnosis as is possible be made in all of these cases. They all constitute important social problems, and must be given as intelligent care or supervision as is possible. The most important work, however, and that which is likely to have the most far-reaching results, is that with younger children who are just beginning to show difficulties, which experience has taught us are often followed by later serious maladjustments and disorders.

## IN CONCLUSION

This progress report, involving 9,527 cases with an age range of from under three to forty years and over, is an indication of the importance of this often neglected activity in any department of public health program. The fact that in the majority of cases the age range was from six to eighteen years points to a concentration of effort in the age groups where the best results are generally obtained. It may be of interest to note that, of the total number of cases that were studied (9,527), there were 1,554, or 16 per cent, classified as feeble-minded. This brings up the age-old question of the possibility of the elimination of feeble-mindedness without the actual elimination of the feeble-minded. The San Francisco Department of Public Health has proceeded on the hypothesis that a diagnosis of feeble-mindedness once made should not necessarily mean an absolutely incurable condition. It is fully recognized, however, that deficiencies in brain tissue can never produce a normal mentality. Moreover, the cases regarded as due to inherited defects bring up another moot question of the prevention of the birth of additional children from the original parents. And, furthermore, humanity demands that, once born, a child so mentally handicapped must live, and must be adequately trained or controlled. To be effective, therefore, the application of modern methods of mental hygiene as a public health procedure must begin early in order that a distinct menace to society may be scientifically and humanely obviated. It is of interest to note that 4,237 cases, or approximately 44 per cent of the total number examined, were classified as normal or superior.

101 Grove Street.

## ANESTHETICS: A PLEA FOR AN ACCURATE RATING\*

By PAUL CAMPICHE, M. D.  
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THE number of anesthetic agents and methods of anesthesia is so great that it becomes increasingly difficult for many of us to appraise their respective values.

If we inquire about the new procedures or new chemical compounds in use as anesthetics at different hospitals, the replies received are often diametrically opposed.

Some of the older men, who were brought up to the use of ether, still consider that to be entirely satisfactory in every case. Younger men, who have studied spinal anesthesia, believe that to be the best method in all of their cases. Anesthetists who are familiar with nitrous oxid may say that it is the perfect anesthetic. Manufacturers and advertising concerns add to the confusion by putting on the market new drugs which in glowing reports are highly praised, while little

or nothing is said about their objectionable features.

We need a method (a yardstick, so to say) by which we may express the value of a given anesthetic by a certain figure representing the sum of its virtues and faults, so that all these drugs can be quickly and easily compared.

For some time past I have attempted to make such an appraisal for my own guidance. Using a mark of 10 for excellent and 0 for very poor, I have tried to determine how each method of anesthesia measures up to certain fundamental requirements or postulates such as *safety*, *efficiency*, *comfort*, and *cost*. I have then subdivided each of these main headings into several parts in such a way that safety counts for five units, efficiency for three, comfort for one, and cost for another one unit.

It is true that my figures may have little value to anybody but myself, as they represent the opinion of one person only. If, however, the problem could be submitted in the form of a questionnaire to one hundred or two hundred anesthetists, and their replies tabulated, the averages reached would, I believe, represent a fairly accurate objective—we might say, "official" rating—by the medical profession, of the various methods of anesthesia.

In the table appended, I have tried to estimate the value of various anesthetics judged by certain standards which are considered to be the indispensable and essential postulates of anesthesia.

## SAFETY

1. *The possibility of instant withdrawal of the anesthetic in case of danger* is one of the fundamental requisites of anesthesia, inasmuch as all anesthetics and soporifics are poisons—potentially at least—and accidents can never be ruled out. The inhalation anesthetics are the only ones which give complete satisfaction under this heading.

2. *The margin of safety* is represented by the amount of anesthetic necessary to carry the patient from the third stage of anesthesia (suppression of reflex sensibility) to the fourth stage (paralysis of the bulb and death). This margin is very small in the case of chloroform, for instance, but is wide for some other agents.

3. Under *injurious effects* we group such accidents as primary inhibition of the heart, asphyxia, secondary degeneration of the viscera, spasm or catarrh of the intestine, and so forth.

4. To obtain an index of the *absence of fatalities*, it is necessary to know the number of deaths in a series of administrations of a given anesthetic. If the figure is, say, two deaths in 10,000 administrations of ether, drop the three zeros and take the inverse figure (10-2-8) as the index. Thus, for ether, 8 is the index for the absence of fatalities in 10,000 administrations.

5. *The absence of inflammability or explosibility* is self-explanatory.

## EFFICIENCY

6. *Suppression of the conscious sensibility*, by which we mean, not the patient's physical com-

\* From the Department of Surgery, University of California Medical School.

Read before the Section on Anesthesiology of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.



# EVALUATION OF ANESTHETICS UNDER VARIOUS HEADINGS

LEGEND  
10 = excellent  
0 = very bad

EVALUATION OF ANESTHETICS UNDER VARIOUS HEADINGS		A. GENERAL ANESTHESIA														B. LOCAL ANESTH.	C. CONDUCTION ANESTHESIA (NERVE BLOCK) Plexus anesth Paravertebral Parasacral Caudal Transsacral Splanchnic	D. SPINAL ANESTH.
		α BY INHALATION							β BY OTHER METHODS									
		I Inhalation plus some opiate					II Inhalation (N <sub>2</sub> O + O) plus some power- ful adjuvants											
		The ideal anesthetic	Ether	N <sub>2</sub> O + O	Ethylene	Cyclopropane	Chloroform	Paraldehyde	Avertin	Barbiturates	Hyoscin (hypodermically)	Rectal Ether	Intravenous Medonal Evipal Isopral	Subcutaneous Hyoscin	Procain (local)			
SAFETY	1 Possibility of instant withdrawal in case of danger	10	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0	
	2 Margin of safety	10	9	9	8	8	2	9	8	6	5	7	3	1	6	6	5	
	3 Absence of primary or after effects (on lungs, heart, liver, kidneys, intestines) and counter indications	10	5	10	10	10	4	9	9	9	8	7	6	9	9	7		
	4 Absence of fatalities	10	6	9	9	9	5	9	8	8	7	9	5	2	9	9	5	
	5 Absence of inflammability (explosibility)	10	2	10	0	0	10	10	10	10	10	1	10	10	10	10	10	
EFFICIENCY	6 Suppression of conscious sensibility (syncope, psychic shock, etcetera)	10	10	10	10	10	10	10	10	10	10	9	9	9	0	0	0	
	7 Suppression of reflex sensibi- lity (especially rigidity of the abdominal muscles) and dura- tion of the anesthesia	10	10	3	7	7	10	8	8	6	6	8	2	5	6	7	10	
	8 Ease of administration even with moderate skill	10	9	4	6	6	5	4	4	5	5	7	9	10	8	6	7	
COMFORT OF THE PATIENT	9 Avoidance of apprehension or mental strain, choking sensa- tion, (odor) nausea, vomiting, headache, etcetera	10	5	9	8	8	7	9	9	9	9	6	9	9	6	5	5	
COST	10 Inexpensiveness	10	9	2	6	6	9	3	3	3	3	9	9	10	8	8	9	
RATING		100	77	76	79	74	74	72	71	69	66	64	64	63	62	62	58	

fort—as mentioned under 9—but his lack of consciousness of the operation is most desirable. In achieving this result, the inhalation anesthetics stand out conspicuously among all others.

7. *Suppression of the reflex sensibility and rigidity*, especially of the abdominal muscles, is the great unsolved problem of surgical anesthesia for laparotomies. The surgeon who is fearful of the bad effects of ether in prolonged operations is forced to resort to various procedures, some of which clearly violate the principles laid down under 1 and 6, and, in addition, are often quite unsatisfactory in other respects.

8. *Ease of administration* makes it possible for an anesthetic to be given in remote districts, in the rear of battlefields, on board ships, etc., by doctors or attendants not highly trained in anesthesia. This feature adds much to the efficiency of an anesthetic available in such situations.

## COMFORT

9. The *comfort of the patient* certainly should not be ignored if it may be had without undue risks, which, unfortunately, is not always the case.

## COST

10. Nor should the *cost* of an anesthetic be forgotten entirely, but instead be completely subordinated to the considerations of safety and efficiency.

## EVALUATION AND "RATING"

If we try to analyze and interpret the figures given in the table, we find the following as facts:

## A. GENERAL ANESTHESIA

1. Inhalation anesthetics, with the addition of some opiate, obtain a rating of from 72 to 77.

Their advantages are the possibility of instant withdrawal in case of trouble, and complete suppression of consciousness; also the margin of safety and the absence of fatalities are fair (with the exception of chloroform). In some of these agents, however, we find very bad features in their after-effects, inflammability, rigidity of the muscles, discomfort of the patient, cost, and so forth.

2. Inhalation anesthesia (mostly nitrous oxid and oxygen, combined with some powerful adjuvant) has a rating of from 64 to 71.

This method gives a little more comfort to the patient and, since it reduces the amount of general anesthetic, has fewer bad effects than the pure inhalation anesthetics; the suppression of conscious sensibility is satisfactory; also there is no danger of inflammability. The powerful drugs once given, however, cannot be withdrawn at will; the margin of safety is not good (except for paraldehyde) and some fatalities have been reported. The suppression of reflex sensibility is not always satisfactory, which means that ether may have to be added; the administration is not easy and the cost is high, as nitrous oxid with oxygen is used throughout.

3. General anesthesia, without inhalation, by the rectal, intravenous, or subcutaneous routes, has a rating of between 62 and 64.

These procedures are (with the exception of ether administered rectally) comparatively com-

fortable to the patient, the expense is small and the administration easy. There is no inflammability (except for ether) and the suppression of conscious sensibility is good. On the other hand, the drugs once given cannot be withdrawn; the margin of safety is small; there have been fatalities (due to idiosyncrasies?), and there have been some bad after-effects on the heart; also the reflex sensibility is not always sufficiently suppressed.

#### B. LOCAL AND CONDUCTION ANESTHESIA

These methods, with a rating of from 60 to 62, have no after-effects to speak of and very few fatalities; there is no inflammability to be feared, and the cost is low. The drawbacks are that, once given, the drug cannot be withdrawn; the margin of safety is within narrow limits; the patient remains conscious; the reflex sensibility and the sensation of pain are not always absent, and there have been cases of psychic shock. In addition, the anesthesia may wear off before the operation is complete. Conduction anesthesia is cumbersome and there are a good many failures. On the whole, the comfort of the patient is not the best.

#### C. SPINAL ANESTHESIA

Spinal anesthesia has a rating of 58. This is the most successful of all procedures for doing away with all muscular rigidity, and there is no fear of inflammability. It has many defects, however: the drug cannot be withdrawn in case of accident; the margin of safety is very small; there are several contra-indications, and bad effects and fatalities occur now and then.

The patient is conscious throughout the procedure and this must cause him great mental distress, as laparotomies are long and serious operations. It is true that technique has been improved greatly of late, and we must admit certain clear indications for this method as the lesser evil in some situations. But, on the whole, it is the least humane of all procedures, and most surgeons consider it a method of exception.

#### COMMENT

The foregoing findings lead to certain definite conclusions: First of all, it is surprising that, after using surgical anesthesia for nearly a century, we possess no anesthetic which rises above a rating of 77. Many of these agents may be called good or fair, but none can be said to be perfect or even excellent, and the ideal anesthetic with an index of 100 is still unknown.

As we found perfection unattainable, the administration of anesthetics has been split into about thirty different methods, each supposed to correspond to some special indication or contra-indication, and it is undeniable that great progress has been achieved. New procedures or new anesthetics are introduced constantly, but they all have one thing in common: on one side they show some improvement; on the other, they come to us with some objectionable feature. The question thus arises, have we made real progress or are we not simply exchanging a poor article for another that

is almost equally mediocre? Why do the chemists and manufacturers insist on putting on the market new anesthetics which so infringe on the fundamental postulates of anesthesia and have such glaring defects—such as toxicity, lack of relaxation, explosibility, and so forth—that, after a few years' trial, are discarded by most of us?

Is there no other direction in which a more decisive advance can be made? Here and abroad are many large firms which maintain staffs of the best chemists of the world. These men have given us artificial silk, synthetic rubber, the terrible explosives of modern warfare, asphyxiating gases, many synthetic drugs and the like, and the question arises: Is it not possible for the science of chemistry to create, by synthesis or otherwise, a more satisfactory anesthetic—one that would combine all the advantages of the others and eliminate their faults? Could not these chemists, for instance, add a "radical" to cyclopropane so as to do away with its inflammability?

Some may think this idea visionary and impossible of realization. Yet we have before our eyes the brilliant achievement of the chemists who gave us novocain, and the story of local anesthesia certainly sounds like a dream come true. Some eighty years ago cocain was introduced and from it surgeons learned what a local anesthetic should not be. In their minds they constructed the ideal drug for local anesthesia—one that would be a good analgesic, of low toxicity, easily soluble in physiologic solution, resistant to boiling, noninjurious to the tissues, and so forth. At their request a chemical genius applied himself to the task of producing this ideal local anesthetic. The molecule of cocain was split; the "elements" or "radicals" that were harmful or useless were eliminated. Other valuable groups or radicals were added. It took thirty years of continuous experimentation; but finally we received novocain, a synthetic drug, which stands as a monument to the will and creative power of the human mind.

Let us hope, then, that, in the search for an ideal general anesthetic, synthetic chemistry will some day repeat the triumph it achieved with the discovery of novocain.

First of all, however, medical men should know what they want. If we had, for all anesthetics, official ratings laid down by a college of anesthesiologists, we could, with these figures, go to the chemists and manufacturers, point out to them the faults that should be corrected and the good qualities that should be enhanced, and give them definite specifications of what we consider a satisfactory anesthetic. With this data in hand, the medical profession could exert a firm pressure and refuse to accept any anesthetic that is put on the market with defects that violate the fundamental requisites of anesthesia. This should spur the chemists and manufacturers to renewed and greater effort until they would be able to give us a really perfect anesthetic that will satisfy all the postulates of *safety*, *efficiency*, *comfort*, and *cost*. We call on the fraternity of anesthesiologists to take the lead in this work!



HYPEROSTOSIS CALVARII INTERNA: ITS  
CLINICAL SIGNIFICANCE\*

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AND  
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**S**YNONYMS: Exostoses within the cranium;<sup>1</sup> intracranial osteophytes;<sup>2</sup> enostoses of the calvarium;<sup>3</sup> hyperostose frontale interne;<sup>4</sup> hyperostosis frontalis interna;<sup>5</sup> calvarial hyperostosis;<sup>6</sup> metabolic craniopathy;<sup>7</sup> cranial hyperostosis of the insane;<sup>8</sup> syndrome de Stewart-Morel;<sup>9</sup> Morgagni's syndrome.<sup>10</sup>

The disturbance is characterized by a bony overgrowth of the internal skull table into firm and irregular nodular masses, extending inward toward the dura and outward into the diploë, converting the latter into a dense tissue. The external table is not involved and the skull not increased in size. Symmetrically placed, it is most frequently found in the frontal region. Moore described<sup>7</sup> the additional variation in which the change is confined primarily to the diploë, classifying it regionally into nebula frontalis, hyperostosis frontoparietalis and hyperostosis calvarii diffusa, and emphasizing the roentgenologic features in each.

Agreeing that the condition is primarily confined to women, authors vary considerably in their estimates of the incidence of hyperostosis in the general population, figures ranging widely from 1 to 40 per cent (Table 1). The groups studied were not comparable in source of material, age, and sex distribution (often not specified), besides being subject to the individual interpretation of observers as to what constitutes a thickening or increased density of the skull. Nothing is known of the etiology of this disturbance, for which the following theories have been advanced: Prolonged recumbency,<sup>11</sup> advancing years,<sup>2</sup> hypercalcemia,<sup>9</sup> pregnancy, menopause,<sup>2</sup> dyspituitarism,<sup>10</sup> hypopituitarism,<sup>8</sup> etc. Moore<sup>7</sup> favors the thesis of a disturbance in mineral metabolism secondary to the female reproductive functions. He has observed obesity

and hirsutism, coupled with a great many scattered neurologic manifestations, and believed it to be a clinical syndrome associated with the hyperostosis. Canavan<sup>3</sup> leans toward a circulatory hypothesis, pointing to the advisability of studying the terminal twigs of the dural vessels vascularizing the internal table of the skull, but he failed to demonstrate any constant concomitant pathology, adding pertinently: "Four papers were written on the subject in the eighteenth century, fifty or more in the nineteenth century, and already nearly ninety have appeared in the twentieth century. Do the physicians today look more, think more, or write more?"

The purpose of this paper is to evaluate the incidence and clinical significance of hyperostosis calvarii interna, as determined by routine roentgenographic examination of skulls of ambulatory patients presenting chronic medical complaints. To our knowledge, roentgen studies of the subject are infrequent (the only available reports being those of Moore) and dependable metabolic observations on a series of cases nonexistent. It appears, therefore, of interest to present our findings.

CLINICAL MATERIAL

The source of material has consisted of 492 consecutive patients of both sexes seen during the past two years. No effort at selection was made on the basis of complaints. The group, therefore, represents a closer approximation to a cross section of the general population than heretofore reported. Roentgenograms of the skull were taken in the lateral position. Initially, those presenting positive findings were supplemented by anteroposterior and stereoscopic views. The procedure was promptly discontinued when it failed to reveal any additional information, and reserved for only those few cases presenting distinct neurologic signs or disease. Moore's classifications were used as standards, namely, (1) hyperostosis frontalis interna; (2) nebula frontalis; (3) hyperostosis frontoparietalis; and (4) hyperostosis calvarii diffusa. In all, sixty-six positive cases, or an incidence of 13.4 per cent, were found (Table 2). Clinical correlations were made with the group as a whole, without regard to its roentgenologic subdivisions.

CLINICAL METHODS

Histories were taken and physical examinations, serologic studies for syphilis (Kahn), microscopi-

\* From the Shelton Clinic.

Read before the Section on Radiology of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

TABLE 1.—Incidence of Hyperostosis Calvarii Interna  
(From Literature)

Author	Date	Source Material	Total Number Skulls	Total Cases Hyperostosis	Incidence Females in Hyperostosis	Incidence Hyperostosis in Total	Incidence Hyperostosis in Females
Beadles	1898	Autopsy	234			21%	
Robertson	1900	Autopsy				29%	
Greig	1928	Autopsy	188	32	88%	17.2%	
Henschen	1936	Autopsy	200	66	83%	33%	40%
Canavan	1938	Autopsy	3,250	230		7%	
Moore	1936	Autopsy	660	40	98%	5%	23%
Moore	1938	Roentgen	8,207	395		4.4%	



Fig. 1.—Hyperostosis frontalis interna.



Fig. 2.—Hyperostosis frontalis interna.

cal urines, and routine blood counts, were performed on all afflicted patients. Oxygen consumption was determined in all, the sugar tolerance (capillary blood sugar over a period of four hours by the micro method of Folin,<sup>12</sup> following ingestion of 100 grams of glucose) in forty-three, and serum calcium,<sup>13</sup> and inorganic serum phosphorus<sup>14</sup> in twenty patients. In the vast majority the patients were observed over a period of several months. Special attention was given to metabolic or endocrine disturbance alone, or in combination with other disorders. Problems in menstruation were subject to consultation with the clinic gynecologist, Dr. Sheldon Payne, supplemented by uterine biopsy and occasionally with bio-assay studies. Neuropsychiatric history and neurologic aspects were diligently sought in all. The spinal fluid was examined when distinct or obscure neurologic disease was manifest.

CLINICAL CORRELATIONS AND COMMENTS

Neurologic disease was present in ten of the sixty-six afflicted patients (Table 3). In five of these cases a history of head trauma in the past, severe enough to cause unconsciousness with neurologic sequelae, was elicited. Although more than half of our sixty-six cases had what may be called some generalized neurologic symptoms in the

affect, sensorium, or periphery (emotional instability, depression, autonomic instability, disturbance in memory, headache, fatigue, insomnia, paresthesia), these could easily be attributed to the various other systemic diseases present. For example, in two of our most severe instances of head-

TABLE 3.—Neurological Manifestations in Sixty-six Cases of Hyperostosis Calvarii Interna

Syndromes	No. Cases	Signs and Symptoms	No. Cases
Epilepsy (postencephalitic)	1	Signs	12
Parkinson's disease	1	Symptoms:	
Multiple sclerosis	1	Headache	14
Paresis	1	Disturbance in memory	5
Peripheral neuritis	1	Parasthesias	9
Head trauma (concussion)	5	Insomnia	5
Depression (manic-depressive)	2	Fatigue	12
		Autonomic instability	15
		Emotional instability	12

ache, one was caused by head injury, the other by repeated sinus infection and operations, and several others were due to uremia, etc. Neurologic signs elicited, however, were much less abundant and almost entirely confined to the already well-established syndromes. It was impossible, there-

TABLE 2.—Incidence of Hyperostosis Calvarii Interna, Tager-Shelton-Matzen

	Skull Roentgenograms	Cases of Calvarial Hyperostosis	Per Cent Incidence
Total	492	66	13.4%
Male	186	2	1.1%
Female	306	64	20.7%
Female less than 15 years	66	0	0.0%
15-20 years	50	2	4.0%
20-30 years	66	22	33.3%
30-40 years	61	14	22.9%
40-50 years	51	21	41.2%
50-80 years	22	7	31.9%





Fig. 3.—Hyperostosis frontalis interna.



Fig. 4.—Nebula frontalis.

fore, to assign a distinct neurologic symptom or sign to the hyperostosis. Undoubted cases of severe degree of calvarial hyperostosis with pressure effects, cortical atrophy and pronounced neurologic manifestations have been observed; but they

TABLE 4.—*Metabolic and Endocrine Manifestations in Sixty-six Cases of Hyperostosis Calvarii Interna Constitutional*

	No. Cases		No. Cases
Pyknic	49	Athletic	3
Leptosomic	10	Dysplastic	4
Weight		Height	
Markedly obese (+ 50% or over)	4	5 ft. 1—5 ft. 3 ins.	18
Obese (+ 20 to 50%)	12	5 ft. 4—5 ft. 6 ins.	30
Plump (+ 10 to 20%)	11	5 ft. 7—5 ft. 9 ins.	17
Normal ( $\pm$ 10%)	30	6 ft. over	1
Underweight ( $-$ 10% and under)	9		

have not been found in our series and are rare in relation to the type here described.

Endocrine considerations appeared of interest in hyperostosis for two reasons: (1) The reputed association of hyperostosis with obesity and hirsutism as reported by Moore, and (2) the restriction of hyperostosis almost exclusively to the female. Obesity and hirsutism did not figure prominently

in our series, and the constitutional make-up showed the usual variations (Table 4). Four dysplastic individuals with the hyperostosis, in combination with both obesity and hirsutism, were seen; they did not, however, reveal neurologic manifestations described by Moore and Carr.<sup>15</sup> It may be added that these individuals were large-boned, tall, coarse-featured, and appeared older than their years. Although defying a strict endocrine classification, one is almost tempted to consider a pituitary factor. However, during the past year, inspection of roentgenograms of four cases of acromegaly did not present hyperostosis frontalis interna. This is in agreement with Moore's observation of seventeen acromegals.<sup>7</sup> Although Mortimer believed that osteosclerosis may be a manifestation of hypopituitarism,<sup>16</sup> only one instance of Simmond's disease, in a woman (and perhaps even she will prove to be a case of anorexia nervosa) was seen in our group. Histologic study of the pituitaries in twenty by Canavan<sup>3</sup> failed to demonstrate any abnormality. Our figures for carbohydrate utilization in forty-three were, on the whole, within normal limits (Table 5).

Because both the serum calcium and phosphorus values showed no abnormalities (Table 5), determination of serum proteins was not deemed necessary for the clinical interpretation of our

TABLE 5.—*Metabolic and Endocrine Manifestations in Sixty-six Cases of Hyperostosis Calvarii Interna*

Thyroid disease	6	Serum calcium (20 cases)	9.9 milligrams $\pm$ 1.0 milligram
Hypothyroid	2	Serum phosphorus (20 cases)	3.7 milligrams $\pm$ 0.9 milligram
Hyperthyroid	2	Sugar tolerance (43 cases)	
Nontoxic goiter	2		Mean Deviation
Pituitary cachexia (?)	1	Fasting	105 milligrams $\pm$ 25 milligrams
Diabetes mellitus	1	Half hour	150 milligrams $\pm$ 40 milligrams
Ovarian deficiency	18	One hour	140 milligrams $\pm$ 35 milligrams
History of pregnancy	20	Two hours	110 milligrams $\pm$ 30 milligrams
Menopausal symptoms	7	Three hours	95 milligrams $\pm$ 25 milligrams
Premature aging	17	Four hours	88 milligrams $\pm$ 25 milligrams



Fig. 5.—Nebula frontalis.



Fig. 6.—Hyperostosis calvarii diffusa.

values. Parathyroid disease was well excluded on clinical as well as laboratory grounds.

No adequate proof is at hand that either pregnancy or menopause contribute to the lesion in question. In our series their incidence was 30 per cent and 10 per cent, respectively. Apart from menopause, eighteen cases (27.3 per cent) revealed structural or functional evidence of hypogonadism. The figure is comparable to its frequency in the general run of all female patients seen at the clinic.

Thyroid disease was infrequently represented by two cases each of hypothyroidism, nontoxic nodular goiter, and hyperthyroidism. Other instances of thyroid disease (including two of myxedema) were found without evidences of the calvarial change under discussion. Minor variations in oxygen consumption more frequently reflected abnormalities in nutritional states and systemic disease than thyroid disturbance.

TABLE 6.—*Miscellaneous Clinical Entities in Sixty-six Cases of Hyperostosis Calvarii Interna*

Cardiovascular-renal disease	10	Anxiety states	2
Pulmonary tuberculosis	1	Acute sinusitis	1
Bronchiectasis	1	Migraine	2
Upper respiratory infection	3	Vascular hypotension	4
Amebic dysentery	1	Fibroid of uterus	1
Carcinoma of uterus	1	Ectopic pregnancy	1

A number of miscellaneous diagnoses were scattered over a wide field (Table 6), with cardiovascular-renal disease (15 per cent) figuring more prominently. Failure to find increased incidence with increased age minimized the rôle of arteriosclerosis. As many cases of hyperostosis were seen in the decade of twenty to thirty years of age as in the forty- to fifty-year group (Table 2). Figures of Canavan present a similar age spread.<sup>3</sup> An aging of the facial appearance in excess of the years was manifest in 27 per cent of all cases.

## COMMENT

Although our incidence of calvarial hyperostosis appears, at first glance, high (26.2 per cent in

females over fifteen years of age), it is because values in the literature have been mostly computed for the general population at large, without regard to the sex incidence of the group evaluated. Since hyperostosis calvarii is confined almost exclusively to the female, figures of incidence are greatly influenced by the relative proportion of females present in the group as a whole, and mean little unless computed for the female population only. When viewed in this aspect, our figure of 26.2 per cent for a female population compares favorably with the figures of 23 per cent and 40 per cent by Moore and Henschen, respectively, for female populations.

The clinical syndrome of obesity, hirsutism, coupled with neurologic phenomena in association with hyperostosis calvarii interna observed by others,<sup>4,7,16</sup> could not be verified. Differences in source of material may explain this discrepancy. Roentgenograms of the skull taken when indicated, that is, for complaints referable to the head or cerebral nervous system, will provide, of course, a clinical correlation with these symptoms, as contrasted with a series of roentgenograms taken routinely on consecutive patients, as obtained in the group here reported. Most of the autopsy reports of skulls are derived from cases presenting clinical features referable to the cranium and its contents, and from institutions for patients with mental disease. Here again, correlations may be abnormally distorted into the direction of neurologic disease.

No adequate theory of etiology is at hand. The immunity from cranial hyperostosis of almost all males, and females under twenty years of age, suggests possible pathogenic significance in active ovarian functions. That this need not be necessarily so is borne out by other sex-restricted clinical entities, as may be illustrated, for example, by alopecia cerebialis simplex of the male, where a distinct endocrine cause is still unknown. Our own cases, few as they are, and scattered over many clinical entities, bring forth no positive suggestion. To obtain any valid assumptions, the relative incidences of hyperostosis in female populations in



large series of given clinical states will have to be evaluated.

#### SUMMARY AND CONCLUSIONS

Roentgenographic examination of skulls in 492 consecutive patients revealed the presence of hyperostosis calvarii interna in sixty-six cases, or an incidence of 13.4 per cent. Found preponderantly in the female, it appears to be an incidental observation in a variety of unrelated clinical states. Analysis of body build, symptoms, and metabolic data, failed to disclose any consistent abnormalities. The etiology and the possible clinical significance of this condition remain obscure.

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#### MANAGEMENT OF SENILE PATIENTS FOR ANESTHESIA AND OPERATION\*

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SENILE surgical patients present a special problem in the choice of anesthetic, operation and management, if the mortality rate in such cases is to be kept at a minimum. We reviewed two groups of senile surgical cases with the purpose in mind of determining, if possible, whether or not there were

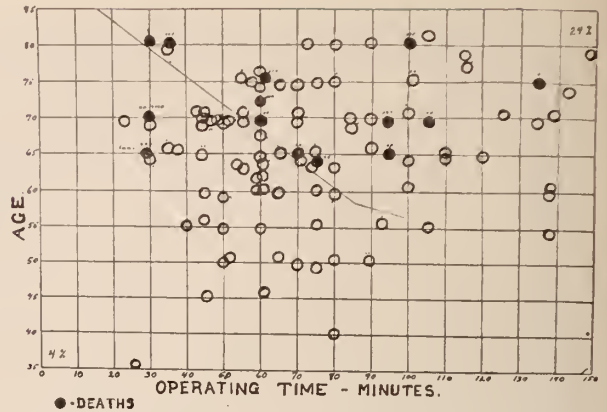


Fig. 1.—Relationship of mortality percentage to age and operating time in surgical prostate cases.

any factors recognizable preoperatively which would serve to place each case in a definite category as to surgical risk. We also made an effort to determine what might be considered a safe maximum in medication, anesthetic and operative procedure which, barring unpredictable events such as embolism, hemorrhage and infection, would leave a wide margin of safety for the senile patient. To these ends we examined the records of a group of patients treated for fractures of the neck of the femur and another group of surgical prostate cases. The preoperative physical findings were correlated with the postoperative results, and the significant features summarized.

There were seventy-two cases of fracture of the neck of the femur during a ten-year period ending in 1935, with seven deaths—a mortality of nearly 10 per cent. These patients were treated with various types of immobilization, mainly plaster spicas. Some had manipulation under anesthesia, and some were treated without anesthesia or manipulation. In 1935 the flanged nail was first used at St. Luke's Hospital for fractures of the neck of the femur. In a series of eighty-seven cases treated by fixation—either with the flanged nail or with other skeletal fixation—there were four deaths—less than a mortality of 5 per cent. The major difference in the management of these two groups for this injury was one of fewer hospitalization days and a more rapid return to normal environment, habits and physical activity for the latter group. It is unlikely that the halving of the mortality rate would have been possible without proper attention to surgical and anesthetic management also.

Studying the summarization of our series of surgical prostate cases we found that the deaths and morbidity days increased with certain definite factors. The outstanding of these factors were (1) the age, (2) the anesthetic and operating time, and (3) failure of three vital systems—the circulatory, the respiratory and the excretory. When viewed graphically (Fig. 1), a dividing line became strikingly evident in respect to mortality. For those whose age was under 65, and for whom the operating and anesthetic time was under one hour, the mortality rate was 4 per cent. For those whose age was over 65 and the operating time was over one hour, the mortality rate was 24 per cent. Also, in

\* Read before the Section on Anesthesiology of the California Medical Association at the sixty-eighth annual session, Del Monte, May 1-4, 1939.

each of the cases which terminated fatally, a very prominent feature was evidence of failure of one or more of the three vital systems.

From our previous observations in these cases we have adopted a routine, whenever possible, which we believe neutralizes in a measure the dangers which beset the senile patient undergoing surgery. The major handicaps of the aged which must be compensated for by special management are: (1) residual damage from disease to the circulatory, respiratory and excretory systems; (2) a loss of resiliency due to old age, which results in failure to recover from shock, and failure to respond to therapy as rapidly as do younger patients; (3) long-established physical and mental habits which stubbornly resist change, but which are upset by hospitalization, anesthesia and operation, and (4) the discouraging fact that a certain percentage of these senile patients have reached the end of their allotted span, and would die in any event without anesthesia and operation during their hospitalization period.

#### PREOPERATIVE CARE

No routine hospitalization period is carried out unless definite favorable results can be predicted, such as recovery from shock or hemorrhage, digitalization, control of diabetes, improvement of kidney function, completion of minor procedures such as vasectomy under local anesthesia and for necessary laboratory and x-ray procedures. Bed rest beyond this point has proven detrimental, because hospital routine disturbs lifelong habits, and some of our senile patients have become irritable and not infrequently irrational from prolonged hospitalization. Changes in diet and room temperature, withdrawal of coffee, alcohol and tobacco, unfamiliar noises and an endless number of minor changes all have their adverse effects upon these patients. Therefore preoperative hospital days and environmental changes are kept at a minimum.

#### PREOPERATIVE MEDICATION

Rather frequent unfavorable experiences with the barbituric-acid derivatives have led us to be cautious in their use for senile patients. Such untoward events as having patients become completely irrational, remove catheters, fall out of bed and sustain fractures, lapse into a stupor from which they did not recover for days after the drug should have been eliminated, have convinced us that it is better to use them in extremely small doses, or to omit them entirely except for special types of cases. For local or spinal anesthesia cases in which the psychic effect of manipulations or prolonged restraint in one position is considered harmful, a moderately large dose of barbiturate is used. The driving of the flanged nail entirely under local anesthesia, the sawing of long bones and other distressing procedures are considered sufficient justification for using larger doses of barbiturates. Sodium hexyl ethyl barbiturate (sodium ortal) has, in our experience, produced a minimum of undesirable effects in three-to-six grain doses for senile patients. If a more powerful sedation is required, pentobarbital (nembutal) is used in three-grain doses. Other barbiturates have produced undesirable

effects. Dilaudid or morphin with or without scopolamin are used to neutralize the exciting effect of the barbiturates.

#### CHOICE OF ANESTHETIC

Although the anesthetic is always adjusted to the particular type of case in hand, we make it a rule to select, whenever possible, the agent having the lowest toxicity. Listed in the order of toxicity, we classify the different anesthetic agents in the following order, the least toxic at the top:

1. Local infiltration.
2. Local infiltration with light gas analgesia.
3. Low spinal anesthesia, using small dosage.
4. Gas inhalation anesthesia, especially cyclopropane.
5. Spinal anesthesia, using average dosage.
6. Gas inhalation anesthesia reinforced with ether or chloroform.
7. Ether inhalation anesthesia.

We would be inclined to reverse the order of 4 and 5 were it not for the fall in blood pressure which one usually encounters with spinal anesthesia. We have had some distressing experiences and near-fatalities from pressure fall with spinal anesthesia for patients having a history or symptoms of coronary disease. Evidently the fall in pressure from the spinal anesthetic drugs produced an insufficiency of circulation through the narrowed coronary artery which resulted in an ischemia of the myocardium. The weakness of the myocardium thus produced caused a persistence of the low pressure after the effects of the intrathecal drugs had worn off. The slow response to drugs in moderate doses in senile patients and the danger of causing rupture of the myocardium by large doses of pressor drugs, made correction of the episode a difficult problem. On this account gas anesthesia has been more satisfactory than average doses of spinal anesthetics for patients known to have coronary artery disease.

Anesthesia for prostatectomies and prostatic resections, with the exception mentioned, is spinal with absolutely minimum doses. Fifty milligrams of procain is the smallest dose used, giving about thirty minutes of anesthesia; 50 milligrams of procain plus 10 milligrams of pontocain is the maximum dose used, giving about ninety minutes of anesthesia. When gas anesthesia is used for the cases with coronary-disease symptoms, we prefer cyclopropane. Nitrous oxide is used for the resections because of the danger of explosion if cyclopropane is employed in the presence of the high-frequency resectoscope.

Anesthesia for fractures of the neck of the femur has been studiously kept at a minimum, and we believe has contributed in a great measure to the low mortality rate in our series. A sedative calculated to make the patient quite drowsy is given preoperatively. Cyclopropane is given for the customary manipulation of the fracture and the fixation of the legs—a procedure requiring usually five minutes. The remainder of the operation is conducted under local anesthesia, with occasionally



very light gas analgesia for obstreperous patients, at intervals as required. Cyclopropane anesthesia is again used for the actual driving and setting of the flanged nail—a procedure requiring about another five minutes. Thus these elderly patients receive a total inhalation anesthesia of seven to fourteen minutes for a surgical procedure requiring frequently two hours because of unavoidable delays for x-rays, adjusting faulty apparatus, resterilization of accidentally contaminated instruments, and other time-consuming procedures.

An observation well worth repeating whenever inhalation anesthesia is mentioned is that a partially obstructed or insufficient airway must never be tolerated. Stridor, obstruction by the tongue, lips, mucus, or by an ill-fitting or a poorly adjusted airway must be corrected immediately. The fatigue, anoxemia and carbon dioxid excess resulting from respiratory obstruction might well use up the small reserve which the senile patient has.

#### OPERATION

The anesthetist is often consulted as to how much surgery the senile patient can safely tolerate. As pointed out in the graphic summary of our series of surgical prostate cases, an absolute minimum of operating time is certainly always advisable. We have arbitrarily grouped our cases in the following manner as to risk:

*Group A. Patients showing evidence of failure in all three of the vital systems as follows:*

1. Failure of the circulatory system (cyanosis, dyspnea on slight exertion and congestive râles in the lung bases).
2. Failure of the respiratory system (reduced vital capacity, cough, râles).
3. Failure of the renal excretory system (kidney function below 45 per cent or other evidence of renal failure).

*Group B. Patients showing only two of the above deficiencies.*

*Group C. Patients showing only one of the above deficiencies.*

*Group D. Patients showing none of the above deficiencies.*

Having thus classified the patients as to the condition of their essential systems, we have been able to give the surgeon a fair indication as to the safe time limit for operation as follows:

*Group A.* No surgery, except life-saving measures, with a maximum operating time of 20 minutes.

*Group B.* Maximum operating time 40 minutes.

*Group C.* Maximum operating time 60 minutes.

*Group D.* Maximum operating time 80 minutes.

Certainly any reduction in operating time enhances the patient's prospects for recovery; and, conversely, when the time limits are exceeded, one must expect morbidity and mortality to increase in direct proportion.

Having established time limits for surgery, one is compelled to plan all procedures with extreme care. Absolutely nothing must be left to chance. All anesthesia apparatus, surgical equipment, elec-

trical equipment (especially high-frequency electrical apparatus, which has, as an outstanding feature, the ability to get out of order at the most critical moments) is checked before the anesthetic is begun. Half-hour delays during operation have been extremely costly in some of our cases.

Comfort on the operating table, preservation of body heat, and a minimum of strained position, trauma and blood loss, are essentials often neglected. The energy expended by a senile patient in lifting with each breath the weight of a tired assistant's elbow resting on his chest for thirty minutes or an hour might well turn victory into defeat by depleting his small but much-needed reserve.

Donors are always matched and ready for use, if any degree of hemorrhage is anticipated. The effects of infusions, intravenous glucose, acacia, etc., in case of hemorrhage are too transient to be relied upon. When oxygen-carrying power of the blood has been lowered by the operation and bleeding, as is usually the case, there is no substitute for blood.

#### POSTOPERATIVE CARE

The immediate postoperative efforts should be aimed at preservation of body heat and a clear airway. Very frequently a postanesthetic visit to the patient's room reveals him breathing with great difficulty against obstruction to his air passages sufficient to cause cyanosis. Such fatiguing efforts on the part of a senile patient frequently go on uncorrected by the nurse, but are draining the patient's reserve while he is suffering from oxygen want and carbon-dioxid excess.

Sedation and stimulation are kept at a minimum. No sedatives are given unless the patient is first examined by the house staff, because routine sedative orders have resulted in dangerous depression when the administration was left to the judgment of the nurse. Barbiturates postoperatively are strictly avoided. Stimulation to raise blood pressure is allowable, especially if the patient complains of substernal distress and dyspnea, because coronary episodes have been, in our series, one of the major postoperative complications.

Following the immediate postoperative care, our aim has been to reestablish the patient's routine habits at the earliest possible time. Alcohol, tobacco, diet and other daily habits may be resumed with benefit very rapidly.

In conclusion, if the anesthetic and surgical management of a senile patient cannot be fitted into a safe limit, we would greatly prefer a palliative but insufficient procedure to a possibly fatal one.

#### SUMMARY

1. Two groups of senile surgical cases are presented with mortality statistics and factors influencing the deaths.

2. Preoperative and postoperative management of senile patients is discussed.

3. Classification as to surgical risk, choice of anesthetic and limits of operating time, have been suggested.

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## CLINICAL NOTES AND CASE REPORTS

### RAT MITE DERMATITIS\*

By ERNEST K. STRATTON, M. D.  
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DESCRIPTIONS, photographs, and characteristics of the mite can be found in Ewing's<sup>1</sup> and Herms'<sup>2</sup> textbooks.

Bishopp,<sup>3</sup> in 1923, reported on the rate mite attacking man, and Shelmire and Dove,<sup>4</sup> in 1931, described in detail some two hundred cases of rat mite dermatitis occurring in Dallas and its vicinity.

#### REPORT OF CASE

H. S., female, age 53, consulted me on July 13, 1939, complaining of an itchy eruption which had been present on and off for six months. She stated that both her mother and maid were troubled with the same type of eruption, which consisted of a few grouped urticarial lesions, with little inflammatory reaction and without the definite puncta characteristic of flea or bedbug bites. I made a diagnosis of "bites," and advised a thorough search of her apartment. The patient called a rodent exterminator concern, and they found what they called a rat louse (*Polyplax spinulosis*). A few days later, following my request for a specimen, the patient found one on her body. It was about the size of a pinpoint, and resembled a grain of cayenne pepper.

The specimen was turned over to Charles M. Wheeler, Ph.D., Medical Entomologist at the George Williams Hooper Foundation for Medical Research, who identified it as the tropical rat mite, *Liponyssus bacoti* (Hirst).<sup>5</sup>

The skin eruption itself is not severe as a rule, but a differential diagnosis must be made from scabies, pediculosis corporis, chigger bites, bedbugs, fleas, grain mites, etc.

It seems that this mite attacks humans only when rats are destroyed, and then they are forced to find other hosts for their meals. (A campaign for destruction of rats had been going on in this patient's apartment in San Francisco.) The mite does not migrate into the skin, as does the acarid scabies, its behavior being similar to that of the mosquito or other blood-sucking insects. When it is full of blood it drops off. If it finds no animal or human, it dies in about ten days.

Fumigation with cyanide gas, carefully controlled, is the recommended procedure for houses, stores, factories, etc.

#### COMMENT

The important question is: Is this mite a vector of disease? From animal to animal, yes. From animal to human, questionable. Dove and Shelmire,<sup>6</sup> in 1932, succeeded in transmitting the Texas

strain of endemic typhus experimentally from guinea pig to guinea pig, through bites of the tropical rat mite. This work was undertaken because, during 1931, when they observed so many cases of rat mite dermatitis in and around Dallas, eleven proved cases (positive Weil-Felix test), and approximately 125 suspected cases of endemic typhus (Brill's disease), were also discovered, a coincidence which they thought might have had some relationship.

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### HUMAN RABIES\*

UNSUCCESSFUL TREATMENT WITH POOLED  
HUMAN IMMUNE SERUM

#### REPORT OF CASE

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IN human rabies, active treatment has been unsuccessful. Various types of sera; shock therapy; chemotherapy, such as arsenicals and drugs; and, more recently, sulfanilamide, have all been tried and found of no avail.

Experimentally, Hoyt and Gurley<sup>1</sup> demonstrated that when mice were injected intraperitoneally with rabbit antirabic serum they showed marked protective powers against intracerebral inoculation of the rabies street virus, even though serum was administered as late as four days after the virus.

The Quarterly Cumulative Index Medicus, 1916 to date, reveals a marked absence of reports on treatment of clinical cases with human immune serum. Berghausen<sup>2</sup> reported the unsuccessful attempt, in a patient, by the use of 18 cubic centimeters of serum obtained from a donor immunized six weeks previously.

This report describes the treatment of a clinical case using human pooled immune serum. The serum was obtained from three persons, previously immunized, with a full course of Semple vaccine. Approximately five weeks following the last administration of vaccine, blood was withdrawn from the donors, the serum separated, passed through a Seitz filter and stored. Approximately 200 cubic centimeters of serum were thus obtained.<sup>†</sup>

#### REPORT OF CASE

*History.*—P. N. G., white child, female, age 5, admitted to the Communicable Disease Division, February 26, 1939. The onset of her current illness began on February 22, with fever and pain in the right ear. The following day she was restless, irritable, and drowsy. The patient was

\* Report of a case due to the tropical rat mite, *Liponyssus bacoti* (Hirst).

<sup>1</sup> Ewing, H. E.: A Manual of External Parasites. C. C. Thomas, Publisher, Baltimore, 1929.

<sup>2</sup> Herms, William B.: Medical Entomology. The Macmillan Company, Publisher, New York, 1939.

<sup>3</sup> Bishopp, F. C.: The Rat Mite Attacking Man. U. S. Dept. of Agric. Department Circular, 294, 4 pp. 1923.

<sup>4</sup> Shelmire, B., and Dove, W. E.: The Tropical Rat Mite *Liponyssus bacoti* (Hirst). Jour. A. M. A., Vol. 96, No. 8, pp. 579-584, 1931.

<sup>5</sup> Hirst, S.: On Three New Species of Gamasid Mites Found on Rats, Bull. Ento. Res., Vol. 6, Part I, pp. 119-124, 1913.

<sup>6</sup> Dove, W. E., and Shelmire, B.: Some Observations on Tropical Rat Mites and Endemic Typhus, Jour. Parasitology, Vol. 18, No. 3, pp. 159-163, three plates, 1932.

\* From the Communicable Disease Division, Los Angeles County Hospital; the Bureau of Epidemiology, Los Angeles City Health Department; and the School of Medicine, University of Southern California.

<sup>1</sup> Hoyt, Anson, and Gurley, M. Katherine: Experimental Street Virus Rabies in White Mice. Studies on Passive Immunization, II. Proc. Soc. Exper. Biol. and Med., 33: 40-42, 1933.

<sup>2</sup> Berghausen, Oscar: A Case of Hydrophobia. Attempted Specific Medication. Medical Record, 92:768 (Nov. 3), 1917.

† Through the cooperation of Dr. Mona Bettin of the Los Angeles City Health Department, and Dr. Clarence M. Hyland, director Serum Depot, Children's Hospital, Los Angeles.





Fig. 1.—The facial expression when water is offered, marked fear of water, mouth guarded by tongue.



Fig. 2.—The fixed stare, the protrusion of tongue. Dried blood about the mouth due to biting of lips, tongue and cheeks.

examined by several physicians, but, in the absence of any history of dog bite, referred the case to the Hospital, with a diagnosis of possible meningitis or pneumonia.

At the Hospital, examination was made by Dr. Lawrence S. Siegel, resident physician, and Dr. Asher H. Lebensohn, both members of the house staff. Immediately following their examination, a tentative diagnosis was made of human rabies, and subsequently confirmed by myself and by positive laboratory reports.

Questioning the parents, and further investigation, revealed that the family had harbored a female dog with a litter of four puppies. Two of the latter became ill, undoubtedly with rabies, and died. On February 5, 1939, one of the infected pups bit the father and the patient. No attention was given to this incident, and it was not reported to the authorities.

**Examination.**—Temperature, 104.6 degrees Fahrenheit; pulse, 180 to 200; respirations, 40 to 52 per minute. The patient's lips were lividly cyanotic and the skin showed a blotchy cyanosis.

Water was offered but refused, due to inability to swallow, and its appearance caused violent spasms and acute maniacal symptoms.\* The eyes were fixed, the patient displayed bizarre facial expressions, gnashed her teeth, protruded her lips and jaw, and had clonic convulsions of the extremities, opisthotonos, and a peculiar shrill cry. These periods of excitement were followed by intervals of stupor. The lateral aspect of the right foot, near the external malleolus, revealed several small, fairly well-healed puncture wounds, resulting from the dog bite.

**Laboratory Data.**—Spinal fluid was clear, with a cell count of six. The globulin was negative, the chlorids 730 milligrams per hundred cubic centimeters of spinal fluid, and the Wassermann negative. The blood chemistry report was: nonprotein nitrogen 51 milligrams, and the creatinin 1.6 milligrams per hundred cubic centimeters of blood. Blood count revealed a hemoglobin of 90 per cent, the red blood count of 4,000,000, the leukocyte count of 20,000 with 94 per cent polymorphonuclear cells. X-ray of chest revealed no frank pneumonic consolidation, but an early bronchopneumonia.

**Therapy.**—General symptomatic care was rendered during the patient's nine-hour stay in the hospital. Spasms were controlled by intravenous use of sodium luminal, and the pulmonary edema with repeated intravenous doses of 50 per cent glucose. Approximately three hours before death the patient received 180 cubic centimeters of pooled human immune serum intravenously, and 20 cubic centimeters intracranially. Shortly after the last procedure the patient died. It must be emphasized that the patient was semimoribund when the serum was administered.

#### COMMENTS

1. An unsuccessful attempt to treat a semimoribund case of human rabies with pooled human immune serum is described.

\* Photographs by Mr. Robert Plunkett, Los Angeles City Health Department.

2. Due to the invariably fatal course of this disease, the procedure warranted a clinical trial.

3. It is hoped to duplicate the procedure in the next case of human rabies that may be admitted to the hospital.

4. Health departments in the larger cities should attempt a program as described, to determine if the use of human immune serum has any merit in the active treatment of human rabies.

5. While no definite conclusions can be drawn from this one case, it may prove of value in suggesting subsequent efforts along the lines indicated.

116 Temple Street.

## HERNIA INTO THE UMBILICAL CORD

WITH SPONTANEOUS RUPTURE AT BIRTH

By MAURICE KORSHET, M.D.

San Francisco

ON March 2, 1938, at 8:20 p. m., a male infant, weighing nine pounds and fourteen ounces, was delivered spontaneously at the Children's Hospital after four and a half hours of first-stage, and twenty-five minutes of second-stage labor.

Prenatal course of the mother included a severe respiratory infection during the first trimester, marked pitting edema of the ankles and feet during the last month of pregnancy, without any rise in blood pressure and without the appearance of albumin in the urine. There were no objective symptoms of toxicity. Previous pregnancy in the mother, January 10, 1936, with uncomplicated prenatal course and uncomplicated delivery of a normal baby girl, weighing seven pounds and ten ounces.

At birth the infant had what appeared to be a uniformly huge hydrocele of the cord. The cord was fifteen inches long and three inches in diameter. There was a rent in the cord about the size of a silver dollar close to the abdominal wall, through which protruded a cluster of small intestines. The cord was partially filled with coloidal material. Most likely, the thin, distended cord wall ruptured while passing through the birth canal.

As some time would have been lost in preparing the surgery for a laparotomy, I decided to do an

emergency closure in the delivery room. A little difficulty was encountered due to the crying of the infant. As fast as one or two loops of intestine were inserted into the abdominal cavity, another loop or two would slip out. The bowels were finally replaced with sponge forceps and the abdominal hiatus closed with No. 2 chromic sutures. A small portion of the cord, with its gelatinous substance, remained. During the following twenty hours, the infant was unable to retain anything by mouth, and no meconium was passed rectally.

The infant was taken to surgery the following evening at eight o'clock, almost exactly twenty-four hours after birth. Under ether anesthesia, a semi-oval incision was made below the umbilicus and a finger gently inserted for exploration. A small loop of intestine was found adherent to the closed abdominal gap, and this was released. The umbilicus was then completely excised with a circular incision wide enough to exclude any vestigial tissue. The intestines were explored and several loops were found to be ingested and hemorrhagic, but no other evidence of obstruction was found. The wound was closed with through and through silk sutures.

Postoperative treatment consisted of clyses with normal salt solution, graduated feeding with breast milk, evaporated milk, dextromaltose and lactic acid formula and pitressin hypodermically. First day postoperative, the infant began to pass meconium. The temperature went to 100-101 degrees the first postcibum days; thereafter the infant was afebrile. He lost one and one-half pounds between the time of birth to the second day postoperative. By the time of dismissal there was a gain of six ounces. He ate only small portions, but retained all feedings. Stitches were removed on the eighth day, and the wound was well healed on dismissal, ten days after birth.

There were other abnormalities in the infant, such as a hammer toe on the left foot, undescended testicles, and an unusually large tongue, cleft in the center, that protruded constantly. The large protruding tongue raised the suspicion of a possible cretinoid or mongoloid status. X-ray, antero-posterior and lateral, of the chest revealed no evidence of a persistent thymus. The heart and lungs appeared normal.

#### COMMENT

In view of the above suspicions, this report was delayed until the infant was further developed. At the last check-up, February 2, 1939, he weighed twenty-four pounds and six ounces, measured thirty-one and one-half inches, was bright, alert, laughed, and played like a normal child. The tongue was much smaller and no longer protruded so conspicuously. The testicles are still undescended.

Microscopic sections of the umbilical cord by Dr. Pearl Smith, pathologist of the Children's Hospital, demonstrated a simple edema of the cord, with no sign of a persistent omphalomesenteric (vitelline) duct, which is sometimes associated with this condition.

Many cases of ruptures or tears of the umbilical cord have been cited, but these were caused by instruments or a very short or neck-entwined cord. There may be some cases of spontaneous rupture without mechanical cause which have not been reported, but most pathologists agree that this condition is quite rare. The fact that, in this case, two operations were performed within twenty-four hours of birth, and resulted in an uneventful recovery, makes it all the more interesting and unusual.

516 Sutter Street.

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*Increase in Coronary Occlusion Deaths.*—The increase in the number of deaths attributed to coronary occlusion probably is mainly due to improvement in diagnosis rather than any increased incidence, *The Journal of the American Medical Association* declares in an editorial.

"O. F. Hedley has recently analyzed 5,116 deaths in the five-year period ended December 31, 1937, reported by the medical profession of Philadelphia as due to acute coronary occlusion," the editorial states. "During this period the total mortality attributed to this cause increased more than 125 per cent in Philadelphia.

"In spite of the great increase in the number of deaths from coronary occlusion, however, the age distribution by decades and the mean age at death remains practically the same for all the years in the period under study. Hence it is concluded that the increase in deaths from acute coronary occlusion cannot be attributed to a tendency to report deaths among the very old as due to this cause. The ratio of males to females was approximately two to one. The mean age at death among all cases was 61.2 years. Further, the mean age at death and age distribution by age decades indicated that deaths among white females occurred at considerably older ages than among white males.

"Although acute coronary occlusion occurs less frequently among negroes than among white persons, deaths from this cause among negroes occur several years earlier. The mortality from this cause appears to be somewhat higher among the Jews than among white Gentiles. However, Hedley points out that this may be due to the large number of Russian Jews and may not prevail among native-born Jews.

"There was no definite seasonal variation of deaths from acute coronary occlusion as judged by the monthly distribution of deaths, although there were considerably fewer deaths during the warm months. The mortality rate among white persons increased from 36 per hundred thousand of population in 1933 to 84 in 1937. Among negroes the increase was only from 25 to 27.

"The increase in reported mortality from acute coronary occlusion during this period cannot be attributed, Hedley says, to any great extent to the aging of the population in general or to the aging of the foreign-born population in particular. Improvement in diagnosis was probably the main reason for the increase. In fact, the diagnosis of coronary occlusion cannot even yet be regarded as stabilized. Some further difficulties can be anticipated, therefore, in determining whether subsequent possible increases in the incidence of mortality from acute coronary occlusion are real or apparent."

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There can be no enduring peace among men or nations except as the rules and practice of society allow and encourage all men and all nations free and equal opportunity to seek fulfillment for their lives by civilized means.—Arthur E. Morgan. Former President of Antioch College.



# CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

## CALIFORNIA MEDICAL ASSOCIATION†

CHARLES A. DUKES.....President  
HARRY H. WILSON.....President-Elect  
LOWELL S. GOIN.....Speaker  
KARL L. SCHAUPP.....Council Chairman  
GEORGE H. KRESS.....Secretary and Editor

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## THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION\*

1. The establishment of an agency of Federal Government under which shall be coordinated and administered all medical and health functions of the Federal Government exclusive of those of the Army and Navy.

Today the medical and health functions of the United States are divided among a multiplicity of departments, bureaus, and federal agencies. Thus, the United States Public Health Service is in the Federal Security Department; the Maternal and Child Welfare Bureaus in the Department of Labor; the Food and Drugs administration in the Department of Agriculture; the Veterans' Administration and many other medical functions are separate bureaus of the government. The WPA, CCC, and PWA are concerned with a similarity of efforts in the field of preventive medicine. The Federal Works Administration and the Federal Housing Administration also have some medical functions.

Since 1875 the American Medical Association has urged the establishment of a single agency in the Federal Government under which all such functions could be correlated in the interest of efficiency, the avoidance of duplication, and a saving of vast sums of money. Such a federal health agency, with a secretary in the cabinet, or a commission of five or seven members, including competent physicians, would be able to administer the medical and health affairs of the Government with far more efficiency than is now done.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

† For complete roster of officers, see advertising pages 2, 4, and 6.

\* This platform, promulgated by the American Medical Association Board of Trustees, was announced at the Annual Conference of Secretaries and Editors of Constituent State Medical Associations, held at the offices of the American Medical Association, 535 North Dearborn Street, Chicago, on November 17 and 18, 1939.

See also, on page 358, comment on "The Achilles Heel of American Medicine."

The physicians of the United States have given freely of their time and of their funds for the care of the sick. Their contributions to free medical service amount to at least \$1,000,000 a day. The physicians of this country have urged that every person needing medical care be provided with such care. They have urged also the allotment of funds for campaigns against maternal mortality, against venereal disease, and for the investigation and control of cancer. The medical profession does not oppose appropriations by Congress of funds for medical purposes. It feels, however, that in many instances states have sought aid and appropriations for such functions, without any actual need on the part of the state, in order to secure such federal funds as might be available. It has also been impossible, under present techniques, to meet actual needs which might exist in certain states with low per capita incomes, with needs far beyond those of wealthier states, in which vast sums are spent.

It is proposed here simply that Congress make available such funds as can be made available for health purposes; that these funds be administered by the federal health agency, mentioned in the first plank of this platform, and that the funds be allotted on proof of actual need to the federal health agency, when that need be for the prevention of disease, for the promotion of health, or for the care of the sick.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

Obviously if federal funds are made available to the individual states for the purposes mentioned in the second plank of this platform, there might well be a lessened tendency in many communities to devote the community's funds for the purpose, and, in effect, to demand that the Federal Government take over the problem of the care of the sick. Hence, it is suggested that communities do their utmost to meet such needs with funds locally available before bringing their need to the federal health agency, and that the federal health agency determine whether or not the community has done its utmost to meet such need before allotting federal funds for the purpose.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

The medical profession is not static. It wishes to extend preventive medical service to all of the people within the funds available for such a purpose. Obviously, this will require not only a federal health agency which may make suggestions and initiate plans, but also a mechanism in each community for the actual expansion of preventive medical service and for the proper expenditure of funds developed both locally and federally. In the development of new legislation such mechanism may be suitably outlined.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

The medical profession does not yield to any other group in this country in its desire to extend medical care to all of those unable to provide themselves with medical service.

The American Medical Association through its House of Delegates has already recognized the possible existence of a small group of persons able to provide themselves with the necessities of life commonly recognized as standard in their own communities, but not capable of meeting a medical emergency. It is recognized, however, that only persons of the same community, fully familiar with the circumstances, can determine the number of people who come properly under such classification and that only persons in actual contact with such instances are capable of administering suitably and efficiently the medical care that may be required. Hence, it is the platform of the American Medical Association that medical care be provided for the indigent and the medically indigent in every community, but that local funds to be first utilized and that local agencies determine the nature of the need and control the expenditure of such funds as may be developed either in the community or by the Federal Government.

**6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.**

In the so-called National Health Program it is asserted that one-half the counties of the United States are without suitable hospitals, and vast sums are requested for the building of new hospitals. In contrast, reputable agencies within the medical profession assert that there are only thirteen counties more than thirty miles removed from a suitable hospital and that in eight of those thirteen counties there are five people per square mile. In the United States today the percentage of hospital beds per 1,000 of population is higher than that of any other country in the world. This fact is completely ignored by those who would indulge in a program for the building of great numbers of new hospitals.

Moreover, it seems to be taken for granted that hospital building has languished in recent years, whereas considerable numbers of hospitals have been built with federal funds by various state agencies and also by the PWA, the WPA, and by the Federal Works Administration.

Analyses may indicate that in many instances such hospitals were built without adequate study as to the need which existed or as to the possible efficient functioning once it was erected. Moreover, there is evidence that in recent years many of the hospitals of the United States, known as non-profit voluntary hospitals, have had a considerable lack of occupancy due no doubt to the financial situation in considerable part. It seems logical to suggest, then, that such federal funds as may be available be utilized in providing the needy sick with hospitalization in these well-established existing institutions before any attempt is made to indulge in a vast building program with new hospitals. In this point of view the American College of Surgeons, the American Hospital Association, the Catholic Hospital Association, the Protestant Hospital Association, and practically every other interested voluntary body agree.

Again, it has been argued that the demands for medical care in some sections of the country might require the importation of considerable numbers of physicians or the transportation of numbers of physicians in the areas in which they now are to other areas. In this connection it would seem to be obvious that a change in the economic status of the communities concerned would result promptly in the presence of physicians who might be seeking locations. The utilization of existing qualified facilities would be far more economical than any attempt to develop new facilities.

**7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.**

In the United States today our sickness and death rates are lower than those of any great country in the world.

This fact was recognized by the President of the United States when he sent the National Health Program to the Congress for careful study. The President emphasized that a low death rate may not mean much to a man who happens to be dying at the time of tuberculosis. The medical profession recognizes the importance of doing everything possible to prevent every unnecessary death. At the same time it has not been established by any available evidence that a change in the system of medical practice which would substitute salaried government doctors for the private practitioner or which would make the private practitioner subject to the control of public officials would in any way lower sickness and death rates.

There exists, of course, the fact that some persons are unable to obtain medical service in the circumstances in which they live and that others, surrounded by good facilities, do not have the funds available to secure such services. Obviously, here again there is the question of economics as the basis of the difficulty and perhaps lack of organization in distribution of medical service and a failure to utilize new methods for the distribution of costs which might improve the situation.

The medical profession has approved prepayment plans to cover the costs of hospitalization and also prepayment plans on a cash-indemnity basis for meeting the costs of medical care. It continues, however, to feel that the development of the private practice of medicine which has taken place in this country has led to higher standards of medical practice and of medical service than are elsewhere available and that the maintenance of the quality of the service is fundamental in any health program.

**8. Expansion of public health and medical services consistent with the American system of democracy.**

Careful study of the history of the development of medical care in various nations of the world leads to the inevitable conclusion that the introduction of methods such as compulsory sickness insurance, state medicine and similar techniques results in a trend toward communism or totalitarianism and away from democracy as the established form of government. The intensification of dependence of the individual on the state for the provision of the necessities of life tends to make the individual more and more the creature of the state rather than to make the state the servant of the citizen. Great leaders of American thought have repeatedly emphasized the fact that liberty is too great a price to pay for security. George Washington said, "He who seeks security through surrender of liberty loses both." Benjamin Franklin said, "They that can give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety."

In these times when the maintenance of the American democracy seems to be the most important objective for all the people of this country, the people may well consider whether some of the plans and programs that have been offered for changing the nature of medical service are not in effect the first step toward an abandonment of the self-reliance, free will, and personal responsibility that must be the basis of a democratic system of government.

## EXECUTIVE COMMITTEE

**Minutes of the One Hundred and Sixty-Eighth (168th) Meeting of the Executive Committee of the California Medical Association**

The meeting was held in the offices of the Association, Room 2004, 450 Sutter Building, San Francisco, Saturday, November 11, 1939, at 9:30 a. m.

**1. Call to Order.**

The meeting was called to order by Chairman P. K. Gilman, with the following members present: President



C. A. Dukes, Chairman of the Council Karl L. Schaupp, Chairman of the Executive Committee P. K. Gilman; Chairman of the Committee on Public Relations George G. Reinle; Secretary-Editor George H. Kress; General Counsel Hartley F. Peart and his associate, Mr. Howard Hassard. Present by invitation, Howard Morrow, Trustee of the Indemnity Defense Fund.

Absent: President-Elect Harry H. Wilson, Speaker Lowell S. Goin, and Past President William W. Roblee.

## 2. Minutes of the Committee on Public Relations.

Secretary Kress called attention to the minutes of the Committee on Public Relations, copies of which had been forwarded to all councilors. No suggested changes were made.

## 3. Financial Statements.

Financial statement for the month of October, 1939, was presented. The Treasurer suggested that the item of "Reprint Sales," as included in the income of the Association, be changed to represent the actual amount of income to the Association, instead of profit plus cost of printing; and that the item under "Expenses of the Association," covering reprint expense, be eliminated. The change in record keeping was approved by the Committee.

There being no objection the financial statement for the month of October, 1939, was approved.

The treasurer then submitted a detailed report on the status of the finances of the Association as included in Report 8A, dated November 11, 1939, and explanatory report thereto, dated November 11, 1939.

## 4. Expense Item.

The Chairman of the Auditing Committee, P. K. Gilman, called attention to the previous action of the Council allowing round-trip fare and lower berth to an officer of the Association on a visit to Washington to represent the Association.

The Secretary was instructed to forward copy of the previous resolution of the Council to the representative, stating that the Auditing Committee had no power to change this action, and if he so desired, the resolution could be brought up for further discussion at the next meeting of the Council.

## 5. Membership.

The Secretary presented a report on the membership of the Association, as embodied in Report 8A, dated November 11, 1939, stating that at present there are 6,333 members in good standing; 300 delinquent members; and 514 new members had joined the Association during 1939.

It was moved by Karl Schaupp, seconded by C. A. Dukes, that all members whose memberships lapsed by reason of nonpayment of dues on April 1, 1939, who have since paid their dues to their component county society and have been properly reported to the California Medical Association office with accompanying dues, be reinstated to membership in the California Medical Association. Carried.

## 6. Santa Barbara Society Membership.

A letter from the Santa Barbara County Society, dated October 17, 1939, regarding the status of two physicians living in Kern County, was presented and was referred to the Council.

## 7. Budget for Calendar Year 1941.

Proposed budget for the calendar year 1941, as prepared by the Auditing Committee, was submitted to the Executive Committee for discussion.

Certain minor changes in allocations were made, including the revision of item 4, reprint sales, to show only the profit from reprints of \$500 and the elimination of item 35, "reprint expense"; also that the miscellaneous income be changed by removing therefrom, as a separate item, annual session income.

Discussion was had of the allocation for support of medical libraries. It was moved by Karl L. Schaupp, seconded by C. A. Dukes, that an allocation be included in the 1941 budget of 25 cents per member for Lane Medical Library in San Francisco, and 25 cents per member for the Barlow Medical Library of the Los Angeles County Medical Association. Carried.

It was moved by Karl Schaupp, seconded by C. A. Dukes, that the budget of income and expense for the calendar year 1941, as prepared by the Auditing Committee and revised by the Executive Committee, be approved and submitted for consideration to the Council at its meeting in January.

The Executive Committee recommended that the Council take into consideration at its January meeting the matter of an increase in the annual dues of the Association.

## 8. Cancer Commission.

Consideration of the appointment of members for the establishment of cancer committees for component county medical societies, composed of physicians, was deferred.

## 9. California State Compensation Fund.

Correspondence from Lowell S. Goin, regarding x-ray and laboratory work for the California State Compensation Fund, was discussed. It was pointed out that this matter was receiving consideration by the Los Angeles County Medical Association.

It was moved by C. A. Dukes, seconded by George Reinle, that the Secretary inform Doctor Goin that the letter had been considered and would be referred to the Council for consideration at its January meeting. Carried.

## 10. Associated Hospital Service of Southern California.

A letter was presented and discussed regarding x-ray and laboratory service furnished to subscribers of the California Physicians' Service by the Associated Hospital Service of Southern California.

It was the sense of the Committee that a copy of Doctor Goin's letter of October 11, 1939, be referred to Doctors Kiger, Pallette, and Wilson for report as to whether or not the x-ray and laboratory service furnished to subscribers was limited to indemnification against costs of such service.

## 11. California Board of Nurse Examiners.

Secretary Kress reported that, in accordance with the request of the California Board of Nurse Examiners, four nominees had been named for appointment on the Advisory Council to the Board of Nurse Examiners, and that the Board had appointed Doctors Dukes and Wilson to the Advisory Council on October 26.

## 12. Cancer Exhibit.

The Association Secretary reported that space for storage of the cancer exhibit from the Golden Gate International Exposition had been secured without cost from the University of California, and that the exhibit material and equipment was at present in the basement of the library building of the Medical School.

## 13. Needy Members of the Profession.

The preliminary report of the Committee on Needy Members of the Profession, appointed in accordance with Resolution No. 11 of the House of Delegates at Del Monte, was referred to the Council.

## 14. Pacific Coast Medical Executives Conference.

After discussion, and in consideration of the many other demands on Association funds, it was moved by C. A. Dukes, seconded by George Reinle, that the California Medical Association do not send a representative to the meeting of the Pacific Coast Medical Executives Conference in Seattle on December 10, 1939; but that an invi-

tation be extended to the Conference to meet in San Francisco in 1940. Carried.

#### 15. Annual Session.

Report was made by the Committee on Scientific Work, through its chairman, the Association Secretary, of the plan to hold no section meetings in the morning hours during the Coronado 1940 session, those periods to be devoted to general meetings, and all section meetings to be held in the afternoons.

It was agreed that time at one of the general meetings, preferably the first general meeting, should be given to a discussion of California Physicians' Service and organization problems.

#### 16. Medical Émigrés.

Correspondence from the Boston Committee on Medical Émigrés, as contained in a letter of October 19, 1939, was referred to the Council.

#### 17. Humboldt County Hospital.

Correspondence relating to medical service in Humboldt County was discussed and was referred to the Council for consideration at its meeting in January.

#### 18. Postgraduate Education.

After discussion of the postgraduate work carried on in San Joaquin County, the Executive Committee approved the payment of \$50 to cover expense of such postgraduate work, as requested by the local unit, with the understanding that no precedent for payment of expense for postgraduate work carried on by local units be established thereby.

#### 19. Adjournment.

There being no further business the meeting adjourned.

P. K. GILMAN, *Chairman*.

GEORGE H. KRESS, *Secretary*.

## COMMITTEE ON PUBLIC HEALTH EDUCATION†

### Report by Committee on Public Health Education on Results of the Chiropractic Initiative— Proposition No. 2 at the November 7 Special Election

Latest available election returns show a "Yes" vote of 784,966 and a "No" vote of 1,852,073, with 242 precincts in the state recorded on Proposition No. 2.

This was an initiative proposition instituted by a group of chiropractors which, broadly speaking, would virtually have permitted chiropractors to practice medicine, and certain acts generally associated with the practice of surgery.

Because of misleading statements publicized by proponents of this initiative, your Committee on Public Health Education felt called upon to advise the public by counter-publicity of the truth in this matter and to strongly stress the much greater amount of education and experience required of a doctor of medicine in comparison to that required of a chiropractor, both under the present law and the terms of the initiative.

Also because of the grave danger to the public health and welfare, should the bars be let down to chiropractors as proposed in this initiative, the Committee took every step in its power to warn the public and urge a "No" vote on this dangerous measure. Your committee's efforts coincided, to a remarkable degree, to what it believes to be the purpose of the Del Monte resolution. A score of newspaper stories were forwarded to all newspapers in the

state, telling in detail of the strict educational requirements and the experience required through internship and otherwise, before a license could be issued to a doctor of medicine. At the same time the comparatively lax requirements for a license for chiropractors and other cultists' practitioners were stressed in these messages to the public.

There can be no question but that the public of California today generally realizes, far more than was the case three months ago, the importance of the medical profession and its superiority in comparison with cultist competitors.

Your committee wishes to report that your entire membership cooperated very well in this campaign and that, as usual, an exceedingly fine campaign of disseminating information to the public was conducted by the California Public Health League. The League, following its usual procedure, did most effective and efficient work in distributing literature and sponsored a radio campaign, which undoubtedly contributed greatly to the results.

More than two hundred newspapers wrote strong editorials urging a "No" vote on Proposition No. 2, most of these editorials being based on information that we supplied. In addition, many important organizations in the state passed resolutions urging a "No" vote. A partial list of these organizations is appended and represents those we were able to check. Undoubtedly there were other resolutions, which have not been reported to us.

Your committee is much pleased with the manner in which this campaign was handled. The campaign proceeded smoothly and efficiently at all times; there was no confusion at any time. This result is very heartening, and a continuation of these methods should be extremely valuable in political campaigns we may be called upon to face in the future.

† † †

Partial list of organizations who adopted resolutions advocating "No" votes to Chiropractic Initiative (Proposition No. 2):

Market Street Association.  
Colusa Chamber of Commerce.  
Scandinavian Civic League Forum, San Francisco.  
Lafayette Club, San Francisco.  
Young Republican Club, Fifty-Third Assembly District, South Pasadena.  
Directors of the Y. W. C. A., San Francisco.  
Central Council of Civic Clubs, San Francisco (78 clubs).  
Commonwealth Club of California.  
Oakland Chamber of Commerce.  
Civic League of Improvement Clubs, San Francisco (54 clubs).  
City Commons Club, Berkeley.  
San Rafael Chamber of Commerce.  
Twenty-Seventh District, Municipal Council, San Francisco.  
Columbus Civic Club, San Francisco.  
San Francisco Junior Chamber of Commerce.  
Steuben Society of America.  
Stockton Chamber of Commerce.  
Pro America, State Board.  
Down Town Association, San Francisco.  
Democratic Coördinating Council of Berkeley.  
San Francisco Order of Cincinnati.  
Pasadena Chamber of Commerce.  
Fresno County Young Democratic Club.  
Santa Cruz County Medical Association Auxiliary.  
San Luis Obispo County Medical Society.  
Civic League, San Francisco.  
Tracy Chamber of Commerce.  
Southside Chamber of Commerce (Los Angeles).  
Stanislaus County Medical Society.  
Central Council of Civic Clubs, San Francisco.  
San Bernardino Chamber of Commerce.  
Los Angeles Junior Chamber of Commerce.  
San Diego City and County Public Health League.  
Monterey County Medical Society.  
Palmer Chiropractors of California (Gilroy).  
Long Beach Junior Chamber of Commerce.  
San Francisco Chamber of Commerce.  
Southern California State Dental Association.  
Brotherhood of Transportation Employees (56 units).  
Veteran Railroaders of America (44 units).  
California Chiropractic Association.  
Chiropractic League of California.

† The Committee on Public Health Education was established through Substitute Resolution No. 6 at the Del Monte annual session, May 3, 1939.

See also in this issue, on page 357.



## C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

### Minutes of Meeting of the Committee on Public Relations of the California Medical Association

The meeting was held in the offices of the Association, Room 2004, 450 Sutter Street, San Francisco, on Saturday, October 28, 1939, at 9:30 a. m.

#### 1. Call to Order.

The meeting was called to order by Chairman George G. Reinle, with the following members present: President Charles A. Dukes, and the following chairmen of committees: J. Norman O'Neill, Committee on Hospitals, Dispensaries, and Clinics; Donald Cass, Committee on Industrial Practice; George G. Reinle, Committee on Medical Defense; Dwight L. Wilbur, Committee on Post-graduate Activities; John H. Graves, Committee on Medical Economics; Roy Thomas, Committee on Health and Public Instruction; George H. Kress, Association Secretary; and Hartley F. Peart and Howard Hassard, legal counsel.

#### 2. Minutes.

The minutes of the meeting of the Committee on Public Relations, held on September 23, 1939, were presented and, there being no objection, were approved as published in the October issue of CALIFORNIA AND WESTERN MEDICINE.

#### 3. Malpractice Insurance.

Full discussion was had of the present situation relating to the securing of malpractice insurance in California.

In accordance with the previous action of the Committee, the suggestions of Doctors Maner and Reinle, and Mr. Peart, for the preparation of a primer devoted to information which would tend to reduce the prevalence of malpractice suits, was discussed. Doctor Reinle presented a booklet on the new Haven plan as prepared by Dr. Frank Wheeler.

The value of Committees on Professional Conduct in all county societies, who would hear complaints between physicians and patients, was brought up.

It was moved by Charles A. Dukes, seconded by Roy Thomas, that a committee, consisting of Doctors Reinle, Maner, and Mr. Peart, be authorized to prepare a brochure or bulletin concerning medical defense, for distribution to California Medical Association members.

It was agreed that the expense of preparation and dissemination of the pamphlet to members of the California Medical Association should be charged to the budget of the Department of Public Relations.

It was suggested that the insurance companies writing malpractice insurance be asked to cooperate with the Association by sending in immediately a notification of the name of any physician against whom a suit is filed.

It was again suggested that the medical schools in California be asked to include, as part of their curriculum, courses on the art of handling the patient and the business of medicine.

It was suggested that a questionnaire be sent to county societies to ascertain whether or not a fee schedule for practice within the county existed.

#### 4. Basic Science Law.

The Secretary stated that letters had been received from Doctor Woodward and Mr. Holloway of the Bureau of Legal Medicine and Legislation of the American Medical Association, suggesting certain changes in the third draft of the Basic Science Act, and that copies thereof would be sent to members of the Committee.

It was pointed out that the Council at its meeting of October 7 requested that the Committee on Public Relations continue its studies, the American Medical Association's suggestions to be considered at the next meeting of the Committee.

#### 5. Exhibits.

Secretary Kress reported on his conferences with Doctor Millberry, Dean of the Dental College, University of California, who is at present planning to collect exhibits from the Golden Gate International Exposition and elsewhere and to establish a museum in San Francisco under the auspices of the American Public Health Association. Doctor Kress stated that Doctor Millberry at the present time was endeavoring to secure funds for the establishment of the museum at San Francisco and that if he failed, then the California Medical Association, through the Department of Public Relations, was to be asked to salvage exhibits that might be used as a basis for a public health exhibit for presentation at state and county fairs in California.

It was moved by Donald Cass, seconded by Norman O'Neill, that the Committee on Public Relations, authorize the expenditure of sufficient funds from the budget, subject to the approval of the President of the Association, the Chairman of the Committee on Public Relations, and the Secretary, to carry out the procedures outlined. Carried.

#### 6. Literature: (a) "Effective Public Speaking"; (b) "On the Witness Stand" (a Discussion of Compulsory Health Insurance).

(a) A copy of a mimeographed handbook, sent out by the Public Relations Bureau of the Medical Society of the State of New York, was inspected, and the plan to send a copy to each county society secretary and to members of the California Medical Association Speakers' Bureau, was approved.

(b) An informative printed brochure, "On the Witness Stand" (also for sale by the Medical Society of the State of New York), in which a clarifying discussion of the deficiencies in compulsory health insurance plans was ably presented, was inspected and discussed. It was felt that the information contained therein was needed by members of the profession in California. Legal Counsel Peart and Counsel on Public Relations, Mr. Marshall, were appointed to make a further study of the report and, if found satisfactory, authority was granted to purchase the pamphlet, for distribution to members of the California Medical Association, the charges to be made against the Committee's budget. The Medical Society of the State of Pennsylvania distributed 30,000 of this pamphlet in 1937 to aid in the defeat of a health insurance bill.

#### 7. Informative Items.

Among informative matters called to the attention of the Committee were the following:

(a) *Health Survey*.—The proposed survey of public health facilities of San Francisco, to be carried on under the sponsorship of the Commonwealth Club of California and the Community Chest.

(b) *Coroner-Medical Examiners System*.—The present Coroner-Medical Examiner System was mentioned, and it was agreed that the problems relating thereto would lie over for consideration at a more favorable time.

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman, and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

(c) *Medical Ethics*.—Attention was called to a matter of advertising in rural newspapers that had come up in one of the county societies and was being handled by the society's officers. It was agreed that these were properly items of local jurisdiction.

(d) *Industrial Practice*.—Discussion of the work of the Committee on Industrial Hygiene and Industrial Health, as carried on by the Council on Industrial Health of the American Medical Association, was deferred for later consideration by the Committee on Public Relations.

(e) *Hospital and Medical Service*.—Correspondence received from the Secretary of the Alameda County Medical Association, re hospital and medical service offered by corporations, was discussed and was referred to the Counsel on Public Relations for his information.

(f) *American Medical Association Survey on Medical Needs*.—Association Secretary Kress reported on the American Medical Association Survey on the Study of Need and Supply of Medical Care as carried on in the counties of California during the past year. Doctor Kress stated that a summary of the reports throughout the United States would be published in an early issue of *The Journal of the American Medical Association*.

(g) *Statute of Limitations*.—It was the sense of the Committee that at the time that the Primer on Medical Defense is sent to California Medical Association members, an informative letter might be included setting forth the law regarding the statute of limitations, with particular reference to keeping of records.

(h) *Wayne County Medical Society Hospital Plan*.—The Secretary reported that the Wayne County Medical Society was offering hospital service to members of their society through the Michigan Society for Group Hospitalization, a nonprofit organization of the hospitals of Michigan.

(i) *California Association of Clinical Technicians*.—The Secretary reported that requests for publicity in the JOURNAL were so numerous that the amount of space allocated to lay and allied organizations and activities was necessarily restricted, and that it had, therefore, been impossible to grant the request of the California Association of Clinical Technicians for space.

(j) *Crippled Children's Act*.—Attention was called to the work of the Los Angeles Public Schools. Also to certain problems in connection with the Crippled Children's Act.

## 8. Committee Meeting.

The next meeting of the Committee on Public Relations was set for November 25, 1939, at San Francisco.

## 9. Adjournment.

There being no further business the meeting adjourned.

GEORGE G. REINLE, *Chairman*.

GEORGE H. KRESS, *Secretary*.

## CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH—SOME OF THE THINGS IT DOES TO KEEP THE PUBLIC WELL

1. Supervises the purity of public water supplies.
2. Supervises the proper disposal of sewage.
3. Maintains supervision of sanitation of eating places and soft drink stands along the highways.
4. Supervises cleanliness of shellfish, including oysters and clams.
5. Supervises activities of twenty-five mosquito abatement districts for the control of malaria.

6. Conducts campaigns for the destruction of ground squirrels and rats, to protect the public against disease carried by these rodents.

7. Investigates industrial plants to eliminate hazards and to protect the health of the working man.

8. Maintains standards for foods and drugs.

9. Maintains high qualities in California wines and liquor.

10. Inspects and regulates local garbage dumps to maintain sanitation and rodent control.

11. Distributes to clinics and physicians, free of charge, drugs for the treatment of venereal diseases for patients who are unable to pay for such drugs.

12. Distributes, free of cost to physicians, "drops" to be placed in the eyes of newly born babies to prevent blindness.

13. Supervises venereal disease clinics throughout the state. Distributes literature and films to inform the public on venereal diseases.

14. Searches for crippled children and conducts diagnostic clinics for them.

15. Provides treatment for needy crippled children to correct their handicaps.

16. Instructs children in the rural districts on proper care of teeth.

17. Provides physical examinations of infants and children in the rural districts assisted by local physicians. Distributes pamphlets, literature and films on child care, maternal and infant care.

18. Maintains a tuberculosis motor clinic equipped with x-ray equipment for use among migratory laboring population and other groups.

19. Maintains nutritionists to advise migratory laboring population on proper foods and their preparation.

20. Keeps three motor units with doctor, nurse, and sanitarian on each to control communicable diseases, and provide medical and nursing relief for migrants, with federal assistance.

21. Supervises tuberculosis hospitals in order to maintain high standards of care.

22. Inspects maternity homes and hospitals to maintain high standards of service and care.

23. Makes bacteriological examinations to assist physicians of rural districts in diagnosis of disease.

24. Helps to organize and maintain full-time public health service in rural counties.

25. Files and indexes all birth, death, and marriage certificates in the state, and issues copies upon request.

26. Supervises the sanitation and controls standards for canned vegetables, meat and fish products.

27. Investigates epidemics of communicable diseases and provides assistance in their control.

28. Examines public health nurses and issues certificates to those who qualify.

29. Examines laboratory technicians and issues certificates to those who qualify.

30. Supervises cold storage warehouses and issues licenses.

31. Inspects and issues permits to approved medical clinics.

32. Inspects and issues licenses to hospitals that operate under the nonprofit hospital act.

33. Conducts intensive study into the cause of influenza through coöperation with the Rockefeller Foundation.

34. Conducts studies into the prevalence and types of lobar pneumonia in California, through assistance of the Federal Government.



## CALIFORNIA PHYSICIANS' SERVICE†

California Physicians' Service has (November 15) 105 groups under contract. Besides the California State Employees' Association, other groups are scattered from San Diego to Sonoma County, though the majority are in Los Angeles or the Bay area.

Membership is increasing at the rate of somewhat more than 1,500 a month, more rapidly in October than in September, and indications are (from several large groups now building up required percentages of memberships) that this rate of increase will be much higher next month and thereafter.

It has been gratifying to find that several employers—some of large groups—are paying part (and in one case all) of the cost of California Physicians' Service membership for their employees.

### Unit Value for September.

As this is written, checks are being sent to professional members for services rendered between August 15 and September 30 (hereafter bills will be paid monthly).

It was possible to pay at the rate of \$1.75 per unit, after deducting a reasonable amount to be allocated to administrative expense and after setting aside the beginning of a reserve fund (for epidemics, etc.).

\* \* \*

### REPORT

Following is an abstract of report of organization history made to the administrative members at the annual meeting at Fresno, October 14:

The naive impression was widely held, as well by ourselves as by doctors generally, that California Physicians' Service could be organized and running within a month or two after the December 17 and 18 session of the House of Delegates. We have learned better.

It will be remembered that the first meeting of the original temporary administrative members was held on January 14, 1939, and the first meeting of California Physicians' Service trustees, then elected, was held on January 28, 1939. It was, therefore, six weeks following the meeting of the House of Delegates before the first work on organization could be undertaken.

The following major lines of activity have been carried on since then:

#### 1. Establishment of Offices and Selection of Personnel.

After interviewing and investigating many candidates, Mr. A. W. Widenham was finally selected as general manager on February 12 and offices at San Francisco opened on March 2.

It was early apparent that, both from the point of view of the medical profession and of public relations, it was essential that an office be established in Los Angeles. This was done on April 1, and shortly thereafter Mr. William Glenn Ebersole was appointed in charge of Southern California territory.

#### 2. Organization of Professional Membership.

(a) Compiling, printing, and mailing a 32-page book of information, together with application blanks to 10,400 doctors.

(b) Information talks before a large number of medical groups, including not only county medical societies, but various hospital and other organization groups as well. It soon became obvious that it would be physically impossible for the members of the Board of Trustees to attend all such meetings for which requests were received and a

specially organized speakers' committee of the California Medical Association took over a large part of this work as well as filling public speaking engagements against the compulsory health insurance plan on behalf of the California Medical Association. We desire here to express thanks and appreciation to the members of this committee, who have given time and defrayed their own travel expense for many trips in this work: Doctors Edwin Bruck, John Cline, G. F. Cushman, L. H. Garland, P. K. Gilman, E. S. Kilgore, J. Marion Read, C. Noble, F. Rochex, Sidney Shipman, Robert Stone, William Voorsanger, and Dwight Wilbur.

(c) Checking, registering, and issuing certificates to 5,020 professional members. Each application had to be checked to verify (1) the fact that the applicant held a currently valid license as a doctor of medicine; (2) that his malpractice insurance was in order. The latter matter was a source of a large volume of individual correspondence, some of which is still going on.

(d) Alphabetizing by counties and printing a directory list of professional members. The registration of 5,000 doctors involved an unbelievable amount of correspondence and telephone work. About 1,000 booklets and application blanks were remailed to doctors who stated they had never received the originals. The relationship of specialists, tuberculosis men, pediatricians, etc., to service under California Physicians' Service had to be repeatedly explained in individual letters. A number of partnerships and clinics requesting a group registration for one \$5 fee had to have the individual status of professional membership explained, etc. The office force—three clerks—was literally swamped during the months of March and April on this work.

(e) Current Information to Professional Members. Professional members are entitled to be kept informed of progress in organization and promotion of California Physicians' Service. Five bulletins have been prepared and mailed, in each case going with other matter (certificates, forms, ballots) in order to save postage expense.

#### 3. Determination of Type of Coverage—Full and Deductible; and Rates Therefor.

For this, as well as other obvious purposes, one of the trustees and Mr. Widenham made a trip to Portland and Seattle to secure data from the experience of those plans. With such data as could be obtained from these and other sources, consultation was had with one of the outstanding actuarial authorities on the Coast. After careful consideration of the problem, we were advised by him that it would be futile to attempt to establish rates on a predeterminable "actuarial" basis on account of the many unknown factors involved—age, sex, occupational distribution, rural and urban distribution, income levels, etc., of the eventual body of beneficiary members, degree of rigidity of administration of the service, etc. In his opinion the only approach was to set a rate considered adequate on the general basis of experience of other plans and then accumulate "actuarial" data from our own experience. He very generously continued to consult with us in the set-up planned for this purpose.

Thereafter the Board established rates of \$2.50 per month for full coverage and \$2 per month for two-visit deductible coverage. (Each figure includes 80 cents for hospitalization.)

#### 4. Establishment of Contract Provisions and Preparation of Forms.

Various details of coverage to be specified in contracts occupied the attention of the Trustees at several meetings. During all this time extensive legal work on the contract forms was done by Mr. Peart and Mr. Hassard. These contracts were gone over repeatedly by our attorneys, by your Executive Committee, and by the General Manager.

† Address: California Physicians' Service, 220 Montgomery Street, San Francisco. Telephone EXbrook 3211. Manager, Mr. Allen Widenham.

We thought several times that they were in order, only to find some important omission or the necessity of changes in wording to clarify meaning. It was not until June 30 that they were ready to go to the printer and we had them in hand for use on July 12.

In spite of all this intensive preparation, it appears likely that changes may yet have to be made in future contracts.

#### 5. Negotiations with Hospital Associations Re Uniform Contracts for Hospitalization.

Negotiations were instituted so that uniform coverage throughout the state could be offered state-wide groups. The hospital associations early undertook to unify their contract provisions, presented their proposed contracts, made certain changes at our suggestion, and this matter was completed readily with one exception, namely, the handling of x-ray and laboratory work on hospitalized cases. It was the desire of California Physicians' Service that this work be included under medical services and this was agreeable to the hospital representatives, but it required numerous conferences between your Executive Committee and the hospital representatives, with reference to and from our trustees and their boards of directors before the present obvious and workable dollar-payment fee schedule less discount, arrangement was arrived at, satisfactory to the hospital associations and the trustees of California Physicians' Service.

#### 6. Negotiations with Hospital Associations Re Sales Organization.

It was at once apparent that complete coverage for both medical and hospital care would have to be sold together and collections made for both services in one check. Furthermore, duplication of sales effort by hospital representatives and California Physicians' Service representatives calling independently on the same prospects would only cause confusion and needless expense.

Months of effort and many meetings were devoted to the working out of some method of operation acceptable to both California Physicians' Service and the hospital associations. Finally, on July 21 the present reasonably satisfactory working agreement was arrived at whereby negotiation for California Physicians' Service and hospital contracts jointly is undertaken by representatives of both organizations.

#### 7. Publicity.

Although it was not the function of California Physicians' Service to undertake political activities against compulsory health insurance, nevertheless it was perfectly obvious that the fact that California Physicians' Service was in process of development was one of the strongest and most effective weapons the medical profession had in the fight to defeat the bills before the legislature. Much attention was drawn to the proposed bills throughout the state, and innumerable calls were received for speakers before lay groups. The majority of these engagements proved to be actual debates as to the relative merits of the compulsory plan and of California Physicians' Service and, although the California Medical Association speakers' committee handled many of the engagements, it appeared frequently desirable that California Physicians' Service be presented by one of the trustees actually engaged in its organization.

In addition to these activities, Mr. Ross Marshall was employed as public relations director and secured wide publicity for California Physicians' Service as the medical profession's plan. Many editorials throughout the state advocated the medical profession's plan as against compulsory health insurance.

#### 8. Planning and Printing of Forms.

Beneficiary membership certificates, initial and monthly doctors' reports, forms for the medical directors, etc. We

believe these forms as they now stand are simple and will be workable and require the minimum of time and effort in their use by professional members. It required money, much thought, effort and time to make them simple and yet accomplish all the purposes they must serve.

#### 9. Planning and Preparation of Statistical and Accounting Systems, Both for Actuarial and Financial Record Purposes.

It was necessary first to decide what information is desired and what is feasible to get. In this we had the generous assistance of Mr. Ralph Nelson, Actuary for the Retirement Board of San Francisco. Then it was necessary to decide by what system actuarial breakdowns could be most readily and least expensively made. After careful investigation the border-punch card system (E-Z Sort) was adopted.

The planning of this and the bookkeeping system required the full time of Mr. B. M. Kelly, formerly accountant for the SRA, for six weeks, with almost daily conferences with your Executive Committee.

#### 10. Fee Schedule.

The development of both a professional service unit schedule and a special schedule for x-ray, laboratory, and anesthesia professional services to hospitalized patients was placed in the hands of Doctors Kelly, Canelo, and Gibbons. The work had to be done with due regard to opinions vigorously and often expressed by various professional groups. It was impossible to complete this in even initial form for the Trustees' adoption before the California Medical Association's annual meeting on April 30, at which time, you will remember, copies were made available to all California Medical Association members who desired to see them, and one afternoon was devoted by the Trustees to open the meeting for discussion.

#### 11. District Organization.

After considerable study and discussion, the state has been divided into twenty-one districts. Some changes will yet need to be made. District organization was undertaken by Doctor Canelo and, in spite of his efforts, one or two districts are still unrepresented by nominees for administrative membership.

Printing and mailing ballot cards (different in each district) to 5,000 professional members has required the equivalent of the full time of one clerk for one month. Printing and postage cost was about \$200.

#### 12. Appointment of Deputy Medical Directors.

This has been done by Doctors Gibbons and Askey, again involving a large amount of correspondence, etc., in order to ascertain preferences of the professional members in each district.

#### 13. Negotiation of Contracts.

Negotiation of contracts was begun about August 15, and has required constant attention by the Acquisition Committee in the matter of interpreting provisions of contracts, determining acceptability of groups, and several conferences have been required over the California State Employees' Association group particularly. It required three weeks of intensive work, several formal conferences with hospital representatives and several subsequent referrals of individual points, to prepare a descriptive folder for use in negotiating contracts.

#### 14. Legal Problems.

This matter is mentioned last in order to emphasize it. California Physicians' Service will be the subject of attack from many sources, not the least of these being tax-collecting authorities of various governmental units. We find ourselves already in controversy over tax exemption and will, of our own motion, file suit to secure judicial determination of the status of California Physicians' Service as



a quasi-public service organization. It is, therefore, absolutely essential that records of all proceedings and all documents, printed matter, etc., be scrupulously scrutinized to make sure that our legal status be not jeopardized. The minutes of the Trustees and the Executive Committee proceedings already fill a substantial volume, for the most part written, from notes provided, by our counsel. Mr. Peart and Mr. Hassard have been consulted at every step which might in any way have legal implications and have contributed constant advice and help on business matters as well. We can perhaps best express their attitude toward California Physicians' Service by saying that they could not have devoted more earnest effort to it if it had been their own personal business.

## COUNTY SOCIETIES

### BUTTE COUNTY

The regular monthly meeting of the Butte County Medical Society was held at the Hotel Oaks on Sunday, November 5.

The occasion was the annual visit of State officers, who were: Dr. Charles A. Dukes, President; Dr. George H. Kress, Secretary-Editor; Dr. C. H. McDonnell, District Councilor; Dr. Frederick N. Scatena, Councilor-at-Large; Mrs. Frederick N. Scatena, President of the Woman's Auxiliary.

The Woman's Auxiliary met at the home of Dr. J. O. Chiapella, with the president, Mrs. N. T. Enloe, presiding. Mrs. Scatena gave a history of the Auxiliary, its aim and accomplishments. Following the meeting, the members and State officers arrived at 6:30 p. m. and were entertained, with Mrs. E. L. Meyer and Mrs. N. T. Enloe as cohostesses.

A dinner meeting followed at the Hotel Oaks, with President E. L. Meyers presiding. The State officers outlined the present and future plans of the Association, and were followed by a talk by Dr. Dwight L. Wilbur on *Headaches from the Internist's Standpoint*.

At the business meeting, the following officers were elected for the coming year: Dr. William W. Carey, president; Dr. D. H. Moulton, vice-president; Dr. J. O. Chiapella, secretary-treasurer.

The following were elected to membership: Doctors Vernon Greer, Hymen Morgenstern, Hans Schmidt, and W. J. Perry.

There were fifty at the dinner.

J. O. CHIAPELLA, *Secretary*.



### MONTEREY COUNTY

Dr. Clifford Sweet of Oakland conducted a postgraduate conference at the Monterey County Hospital on November 2, consisting of a demonstration pediatric clinic, under the auspices of the Bureau of Child Hygiene.

Doctor Sweet also addressed the Monterey County Medical Society at the regular dinner meeting, Hotel Del Monte, on the subject, *Convulsions in Childhood*.

The following were elected to hold office for 1940: Mast Wolfsolm, president; John R. Gratiot, vice-president; Arnold Manor, secretary-treasurer; John Sharp, delegate; Dwight Bissell, alternate; and Charles Galligan, censor.

HERBERT C. ARCHIBALD, *Secretary*.



### PLACER COUNTY

The Placer County Medical Society met at 8 p. m. on November 4 at the Freeman Hotel in Auburn. President William M. Miller presided. In addition, the following members attended: Doctors C. C. Briner, Dubin, Empey, Hirsch, Kindopp, Lewis, March, Peeke, Peers, Russell, and Thoren.

The Secretary reported that, of the forty-one members, four are exempt from the payment of the special assess-

ment. Of the thirty-seven remaining members subject to the assessment, thirty-two have paid, as of November 4.

This being the annual meeting, an election of officers was held, resulting as follows: William M. Miller of Auburn, president; Lucas W. Empey of Roseville, vice-president; Robert A. Peers of Colfax, secretary-treasurer. The election of a delegate and an alternate will be held at a later meeting.

The application of Dr. Charles M. Wood of Grass Valley was read for the second time, and Dr. Wood was unanimously elected.

The application of Dr. John R. Topic of Nevada City was read for the first time.

Correspondence received since the previous meeting was read and discussed, and appropriate action taken where necessary.

Nothing further being presented, the meeting adjourned.



The Placer County Medical Society held its autumn meeting with a dinner at the Freeman Hotel in Auburn on Saturday evening, November 18, with President William M. Miller presiding. There were present nineteen members of the Society and eleven visitors, including two captains and six traffic officers of the California Highway Patrol, located in Placer and Nevada counties.

Following the dinner, and before the business and program were taken up, President Miller asked all those present to stand in memory of our deceased member, Dr. Vernon V. Rood of Grass Valley, who died suddenly the evening of November 16. Following this intermission the Secretary was instructed to prepare a suitable resolution to be spread upon the minutes and a copy sent to Doctor Rood's family.

The reading of the minutes of November 4 was postponed.

Due to an oversight, the delegate and alternate to the California Medical Association were not elected at the regular annual meeting. President Miller called for nominations. Dr. Lucas W. Empey of Roseville was elected as delegate and Dr. Mildred E. Thoren of Weimar was elected as alternate.

There was a communication from Miss Lu Crandall, Supervisor of Child Welfare of Placer County, asking that the Society appoint a Public Health Committee which she could consult regarding any problems which might come up in the interval between medical meetings. It was moved, seconded and carried, that such a committee be formed and that the members consist of the President, Vice-President, and Secretary.

President Miller then introduced the councilor of the Eighth District, Dr. Frank A. MacDonald of Sacramento, who addressed the Society briefly, bringing to the members of the Placer County Medical Society greetings from the Council and from the officers of the California Medical Association.

A *Symposium on Alcohol and the Drunken Driver* was the program of the evening. The problem was approached from the legal aspect by District Attorney Lowell Sparks. Attorney Sparks cited the laws covering the problem of the drunken driver and the penalties attached thereto. He gave in detail the *modus operandi* of handling such cases and cited decisions covering the problem of what constitutes drunkenness. He outlined Placer County's system of dealing with the drunken driver.

In the absence of Chief Cato of the California Highway Patrol, who was to have been the next speaker, the point of view of the Highway Patrol was ably discussed by Captain LaPorte of Roseville.

Finally, the medical aspect was discussed by Dr. Edmund Butler of San Francisco, lecturer on traumatic surgery at Stanford University Medical School and chief surgeon of the San Francisco Emergency Hospital Service.

Doctor Butler outlined the various methods employed by authorities of different counties in the prosecution of drunken drivers and reviewed the various methods of examination used in San Francisco. The Doctor discussed thoroughly the method used by him and his associates in the determination of whether or not the driver in question is intoxicated, including the physical examination, blood and urine tests, and a test where a triangle, a circle, and a square are drawn by the physician and copied by the suspect.

Doctor Butler reviewed the number of accidents which have occurred in recent years and where injured persons have been cared for by him and by members of his staff. He discussed the percentage in which alcohol was a factor, giving statistics showing the increase in drunken drivers, not only among male drivers but also among female drivers. He feels that, as a result of the increase in the number of accidents where alcohol is a factor, much more stringent laws regarding the sale of alcohol will be passed and that the probability of a return of prohibition is more than a possibility.

Following Doctor Butler's most excellent address, there was general discussion by the members and visitors, who asked questions which were answered by the speakers. It was generally agreed that this was a most illuminating meeting of the Society.

Nothing further presenting, the meeting was adjourned.

ROBERT A. PEERS, *Secretary*.

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#### SAN BERNARDINO COUNTY

The annual meeting of the San Bernardino County Medical Society was held at Mape's Cafeteria in San Bernardino on Tuesday evening, October 3, when dinner was served at seven o'clock.

There were 135 members and guests present, and the members of the Riverside County Medical Society joined in the meeting, which was called to order by the president, Dr. Delbert B. Williams, at 8:15 o'clock.

*Election of Officers.*—It was moved by Doctor Garnett, and seconded by Doctor Taylor, that the officers nominated last year be unanimously reelected, and that the Secretary be instructed to cast a unanimous ballot. Passed.

Doctor Williams then installed Dr. Walter S. Cherry as president of the Society.

Owing to the important guests, Doctor Williams very graciously declined to give his address as retiring president, and made a few farewell remarks instead.

The paper of the evening was given by Dr. J. B. Harris of Sacramento on *How Laws Are Made*, after which Doctor Cherry introduced the following visitors in the order named, and each one made a short address: Mr. Ralph E. Swing, Senator from San Bernardino County; Mr. Phillips, Senator from Riverside County; Mr. Godfrey Andreas and Mr. Gordon Corwin, Assemblymen from San Bernardino County; Mr. Dilworth, Assemblyman from Riverside County; Dr. W. W. Roblee, past president of the California Medical Association; Mr. Ross Marshall, Publicity Councilor of the California Medical Association; Dr. N. K. Bear, President of the Riverside County Medical Society; Dr. C. L. Emmons, California Medical Association Councilor of the District; and Mr. Ben Read of the Public Health League, who spoke on Proposition No. 2 on the ballot for the November 7 election.

After a most enjoyable evening, the meeting was adjourned at 10:15 o'clock.

ARTHUR E. WARDEN, *Secretary*.

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#### SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held on November 2 in the Medico-Dental clubrooms, Stockton, preceded by the customary supper at the Hotel Wolf, at which twenty-one members and

guests were present. The paper then presented was by Dr. E. C. Griner, who talked on *The Influence of the PH Reaction of the Vagina in Treatment of Infections*.

The regular meeting was called to order at 8:20 o'clock by President Neill P. Johnson.

The application of Dr. Julius Zelman for membership in the San Joaquin County Medical Society was read, and referred to the Membership Committee. Dr. Dewey Powell then made a report on the activities of the Public Relations Council of the California Medical Association, and also on the recent meeting in Fresno of the councilors of the California Physicians' Service. Dr. Frank Doughty elaborated on Doctor Powell's remarks on the Fresno meeting. Doctor Eccleston reported progress on the new Constitution and By-Laws, and asked that all forms for the recent American Medical Association study of medical service in San Joaquin County be forwarded to his office whether they were completed or not.

The next order of business was the nomination for officers for the ensuing year: Langley Collis and Hugh J. Bolinger, president; Ray Owens, first vice-president; T. W. Kyddson, second vice-president; G. H. Rohrbacher, secretary-treasurer; C. W. Martin, Verne Ross, Ed Faulkner, Percy Gallegos, A. K. Merchant, N. P. Johnson, and Dewey Powell, directors; Frank Doughty, G. H. Sander-son, Frank A. McGuire, G. H. Rohrbacher, delegates; and C. A. Broadus, C. V. Thompson, and Verne Ross, alternates.

Dr. Lloyd B. Dickey of Stanford University Hospital, San Francisco, then spoke on *Tuberculosis in Children*. This paper, illustrated by lantern slides, was extremely interesting. There being no further business to come before the Society, the meeting was adjourned at 10:30 o'clock, after refreshments had been served.

G. H. ROHRBACHER, *Secretary*.

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#### SAN MATEO COUNTY

The November meeting of the San Mateo County Medical Society, having been postponed until the fifth Wednesday of the month because of the Administration's special Thanksgiving Day, was held on Wednesday evening, the 29th, in the Benjamin Franklin Hotel.

The following papers were presented: *Nutritional Factors in Relation to the Eighth Nerve*, by Grant Selfridge, M. D., of San Francisco; *Recent Advances in the Study of Vitamins*, by Jesse L. Carr, M. D., of San Francisco.

A brief business meeting was held in connection with the nomination of new officers for the coming year.

The attention of the Society's members was called to the activities of one C. W., representing the "C. Associates of New York." This young man presents himself as working for a \$500 scholarship provided by the late Walter Camp, and in connection with which he must obtain subscriptions for a periodical put out by the company he represents. Without going into the merits of the case and without attempting to question the integrity of Mr. W., we have been informed by a branch of the National Retail Creditors' Association that this type of activity is properly referred to as a salesmanship racket.

J. GARWOOD BRIDGMAN, *Secretary*.

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#### VENTURA COUNTY

The regular meeting of the Ventura County Medical Society was held at the Saticoy Club on Tuesday, October 10, and was called to order by Vice-President Barker. There were nineteen members present, with Doctors Gray, Taylor, and Renger as guests.

Dr. P. A. Gray of Santa Barbara gave a full and interesting discussion on *The Endocrine Aspects of Diabetes*.

Dr. Grace F. Thomas of Camarillo and Dr. Emil F. Tonn of Ventura were unanimously elected to membership.



Communications were then read from Dr. Frank J. Breslin, requesting that anyone interested in presenting a surgical paper at the Coronado session make application to him; and Dr. Alson R. Kilgore of the California Physicians' Service, replying to our criticism of the handling of the election of directors to the California Physicians' Service for this district.

This having concluded the program, the meeting was adjourned.

The regular meeting of the Ventura County Medical Society was held on Tuesday, November 14.

The meeting was called to order by President Mosher, thirteen members being present. Guests were: Doctors Kirchner and Assistant, Renger, Leavitt, and Ullmann.

Doctor Ullmann outlined the procedure for the local committee in the Cancer Commission educational campaign for the month of April. Doctor Homer was appointed chairman of the committee, and was asked to appoint two more members to assist him.

Communications from the California Physicians' Service were read, clarifying the necessary procedure a patient should follow to receive treatment either from a general practitioner or a specialist. The difference between the \$2 and \$2.50 a month policies was also clarified.

A. A. MORRISON, *Secretary*.

## CHANGES IN MEMBERSHIP

### New Members (33)

#### *Alameda County*

Edward A. Westphal

#### *Contra Costa County*

J. M. Boomer

#### *Los Angeles County*

Anthony Ariana	Harry Lasin
Ralph Chapman	Robert A. Lovell
John J. Duncan	Robert M. Shelton
Harry Flyer	Meyer C. Thorner
Vernon F. Hauser	Hewitt A. Waggener
Richard S. Heath	

#### *Mendocino County*

J. E. Gardner

#### *Merced County*

J. Hal Cope, Jr.

#### *Monterey County*

Robert D. Mace                      Harry Schultz

#### *Placer County*

Frederick H. Benteen

#### *Riverside County*

Reuben L. Kaufman

#### *San Diego County*

Frank M. Casto                      Arthur M. Dougherty

#### *San Francisco County*

Mortimer A. Benioff	Ernest H. Nast
Henry J. Lanc	William J. Quinn
Katherine H. Leicester	Jack C. Sleath
Lester S. Lipsitch	John A. Stiles
Gregory N. Maximov	Charles Weiss

#### *Santa Clara County*

B. Paul Davies                      Edwin D. Kilbourne, Jr.

### Transfers (3)

C. A. Gregory, from Sonoma County to Contra Costa County.

Oliver H. Perry, from Yuba-Sutter County to Lassen-Plumas-Modoc County.

William J. Perry, from Mendocino County to Butte County.

### Resigned (1)

George H. Anderson, from San Francisco County.

## In Memoriam

**Beck, John A.** Died at Salinas, October 28, 1939, age 78. Graduate of Hahnemann Medical College of the Pacific, San Francisco, 1895, and licensed in California the same year. Doctor Beck was a member of the Monterey County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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**Blodgett, Walter LeRoy.** Died at Oakland, October 25, 1939, age 69. Graduate of Cooper Medical College, San Francisco, 1895, and licensed in California the same year. Doctor Blodgett was a member of the Napa County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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**Brown, Robert.** Died at San Francisco, September 13, 1939, age 61. Graduate of the College of Physicians and Surgeons of San Francisco, 1911, and licensed in California the same year. Doctor Brown was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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**Cutler, Oran Idnire.** Died at Loma Linda, September 15, 1939, age 39. Graduate of the College of Medical Evangelists, Loma Linda, 1924, and licensed in California the same year. Doctor Cutler was a member of the San Bernardino County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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**Gibbs, Roy Struble.** Died at San Bernardino, October 30, 1939, age 69. Graduate of the University of Southern California School of Medicine, Los Angeles, 1901, and licensed in California the same year. Doctor Gibbs was a member of the San Bernardino County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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**Hromadka, August Benjamin.** Died at Santa Monica, October 26, 1939, age 59. Graduate of Northwestern University Medical School, Chicago, 1907, and licensed in California the same year. Doctor Hromadka was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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**McHugh, Thomas Richard.** Died at Los Angeles, October 21, 1939, age 62. Graduate of the University of Michigan Homeopathic Medical School, Ann Arbor, Michigan, 1901. Licensed in California in 1911. Doctor McHugh was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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**Plymire, David Brandley.** Died at Ben Lomond, October 15, 1939, age 70. Graduate of St. Louis College of Physicians and Surgeons, 1895. Licensed in California in 1898. Doctor Plymire was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

## THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION

MRS. FREDERICK N. SCATENA.....President  
MRS. WILLIAM C. BOECK.....Chairman on Publicity  
MRS. KARL O. VON HAGEN.....Asst. Chairman on Publicity

### WOMAN'S AUXILIARY— ITS WORK AND PURPOSE

Writing for Los Angeles County physicians and their wives in the *Bulletin of the Los Angeles County Medical Association* for August 17, 1939, Mrs. E. Eric Larson, President of the Los Angeles Auxiliary, clearly outlines the *Womans Auxiliary—Its Work and Purpose* for us all. We give you the following excerpts:

In 1922 the American Medical Association established a Woman's Auxiliary. The California Medical Association created its state unit in May, 1929. . . .

The purposes of the organization are stipulated in its by-laws: "To bring its members into more active affiliation with organized medicine; to cooperate with other organizations and with the ——— County Medical Association in the promotion of desirable public health and social welfare work; to initiate or assist in any work that shall be approved from time to time by the ——— County Medical Association."

The membership is composed of "The wives and mothers, adult sisters, adult daughters, adult grand-daughters, and the widows of members in good standing in the ——— County Medical Association (active, associate, or honorary). Women having the degree of M. D. shall not be eligible to membership. . . .

The Auxiliary has as its Advisory Board "The President, Vice-President, and Secretary of the ——— County Medical Association. . . .

The officers of the local Auxiliary are a president, a first vice-president, a second vice-president, a recording secretary, a corresponding secretary, a treasurer, and six directors, who serve for one year. . . .

The major activities are carried on through standing committees: Membership and Organization, Finance, Social Activities, Program, Publicity and Publications, Public Health Activities, Public Relations, Hygeia, and Speakers' Bureau.

Special committees are appointed by the president. Those now active in the local Auxiliary are: Legislation, Mailing, Reservations, Hospitality, Flowers, Ushers. . . .

The dues of the Woman's Auxiliary are two dollars per year. One dollar of this sum is retained in the local treasury. The other dollar is sent to the treasurer of the Woman's Auxiliary to the California Medical Association, who retains seventy-five cents for the expenses of the state organization, sending the balance of twenty-five cents to the treasurer of the Woman's Auxiliary to the American Medical Association. . . .

The Board is desirous of availing its organization of the influence possible in the greatly increased membership which would follow if each doctor urged upon the eligible members of his family his wish for their affiliation with the group. This support will be assured when the doctors are aware that the organization exists to acquaint its members with the many problems affecting the practice of medicine; to understand the political issues which influence the professional and family life of the doctor; to keep informed of the scientific progress of the medical profession, in so far as is comprehensible to laywomen; to become informed of phases of public health; and to enjoy in these endeavors the association of those women who, for the purpose of evidencing their willingness to serve the medical profession, have banded together in the Woman's Auxiliary.

## STATE OFFICERS AND COUNTY PRESIDENTS

### STATE OFFICERS

*President*—Mrs. Frederick N. Scatena, 1453 Forty-fifth Street, Sacramento.

*President-Elect*—Mrs. A. E. Anderson, Finance Chairman, 1035 Cambridge Avenue, Fresno.

*First Vice-President*—Mrs. Harry O. Hund, Membership and Organization Chairman, 1304 Grand Avenue, San Rafael.

*Second Vice-President*—Mrs. Frank Baxter, Program and Health Education Chairman, 33 Bowling Drive, Oakland.

*Recording Secretary*—Mrs. G. Wendell Olson, 219 Buena Vista Drive, Fullerton.

*Corresponding Secretary*—Mrs. George A. Spencer, 1915 Twenty-first Street, Sacramento.

*Treasurer*—Mrs. C. G. Stadfield, 1314 North Highland Avenue, Los Angeles.

*Historian*—Mrs. Arthur T. Newcomb, 1 Richland Place, Pasadena.

*Parliamentarian*—Mrs. Hobart Rogers, 1137 Mandana Boulevard, Oakland.

### COUNCILORS-AT-LARGE

Mrs. H. E. Henderson, Hygeia Chairman, 1600 Oramas Road, Santa Barbara.

Mrs. F. G. Lindemulder, Convention Chairman, 2251 San Juan Road, San Diego.

Mrs. John D. Humber, Public Relations Chairman, 225 Maywood Drive, San Francisco.

Mrs. William C. Boeck, Editor and Publicity Chairman, 712 North Maple Drive, Beverly Hills.

### DISTRICT COUNCILORS

*First*—Mrs. Harry Huffman, 2340 Riverside Drive, Santa Ana.

*Second*—Mrs. Horace H. McCoy, 202 Prospect Avenue, Long Beach.

*Third*—Mrs. Richard McGovney, 64 Glendessary Lane, Santa Barbara.

*Fourth*—Mrs. J. R. Walker, Route 3, Box 528, Fresno.

*Fifth*—Miss Julia Koenicke, 1119 Central Avenue, Salinas.

*Sixth*—Mrs. Eugene Kilgore, Public Health Activities Chairman, 2417 Green Street, San Francisco.

*Seventh*—Mrs. Charles C. Hall, 206 Estates Drive, Piedmont.

*Eighth*—Mrs. E. O. Brown, 1430 Firty-sixth Street, Sacramento.

*Ninth*—Mrs. Frank A. Lowe, 2370 Sixteenth Avenue, San Francisco.

### COUNTY PRESIDENTS

*Alameda*—Mrs. George Calvin, 406 Bellevue Avenue, Oakland.

*Butte*—Mrs. N. T. Enloe, 488 East Third Street, Chico.

*Contra Costa*—Mrs. Kaho Dally, 2367 Carquinez Avenue, Richmond.

*Fresno*—Mrs. Kenneth J. Staniford, 437 Olive Avenue, Fresno.

*Kern*—Mrs. J. J. McCarthy, 2026 C Street, Bakersfield.

*Lassen-Plumas-Modoc*—Mrs. G. R. Fortson, 912 Lassen Street, Susanville.

*Los Angeles*—Mrs. E. Eric Larson, 126 Fremont Place, Los Angeles.

*Marin*—Mrs. C. A. DeLancey, 1 Culloden Park Road, San Rafael.

*Merced*—Mrs. C. E. FitzGibbon, 650 Twenty-sixth Street, Merced.

*Monterey*—Mrs. Raymond V. Rukke, 135 Franklin Street, Monterey.

*Orange*—Mrs. Edward Lee Russell, 1439 Louise Street, Santa Ana.

*Riverside*—Mrs. W. W. Roblee, 3177 Orange Avenue, Riverside.

*Sacramento*—Mrs. Norris R. Jones, 2725 Coleman Way, Sacramento.

*San Diego*—Mrs. William C. Cooke, 2770 Sixth Avenue, San Diego.

*San Francisco*—Mrs. Edmund J. Morrissey, 2540 Filbert Street, San Francisco.

*San Joaquin*—Mrs. Hudson Smythe, 1605 North Hunter Street, Stockton.

*San Luis Obispo*—Mrs. G. D. Kelker, 1305 Marsh Street, San Luis Obispo.

*San Mateo*—Mrs. George Sevenman, 225 Catalpa Avenue, San Mateo.

*Santa Barbara*—Mrs. Edward L. Markthaler, 2304 State Street, Santa Barbara.

*Santa Clara*—Mrs. Philip L. Wise, 199 South Sixteenth Street, San Jose.

*Santa Cruz*—Mrs. Frederick P. Shenk, 450 Escalona Drive, Santa Cruz.

*Stanislaus*—Mrs. Hans Hartman, 715 Magnolia Street, Modesto.

*Tulare*—Mrs. J. C. McClure, Box 36, Lindsay.

*Ventura*—Mrs. A. J. Strong, Santa Paula.



## MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

## NEWS

### Coming Meetings.

*American Medical Association*, New York, June 10-14, 1940. Olin West, M. D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

*California Medical Association*, Hotel Del Coronado, Coronado, May 6-9, 1940. George H. Kress, M. D., Secretary, 450 Sutter Street, San Francisco.

*Association of Western Hospitals*, Hotel Biltmore, Los Angeles, April 8-11, 1940. Thomas F. Clark, Executive Secretary, 1182 Market Street, San Francisco.

### Medical Broadcasts.\*

**American Medical Association Broadcasts: "Medicine in the News."**—The American Medical Association and the National Broadcasting Company have announced "Medicine in the News," on timely topics from medical news of the week. Thursdays, 4:30 p. m., Eastern standard time (1:30 p. m., Pacific standard time), Blue Network—Coast to coast; thirty weeks, opening on November 2, 1939; facts, drama, entertainment, music.

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### *Los Angeles County Medical Association.*

The radio broadcast program for the Los Angeles County Medical Association for the month of December is as follows:

Saturday, December 2—KFII, 9:45 a. m., The Road of Health; KFAC, 10:30 a. m., Your Doctor and You.

Wednesday, December 6—KECA, 11:15 a. m., The Road of Health.

Saturday, December 9—KFII, 9:45 a. m., The Road of Health; KFAC, 10:30 a. m., Your Doctor and You.

Wednesday, December 13—KECA, 11:15 a. m., The Road of Health.

Saturday, December 16—KFII, 9:45 a. m., The Road of Health; KFAC, 10:30 a. m., Your Doctor and You.

Wednesday, December 20—KECA, 11:15 a. m., The Road of Health.

Saturday, December 23—KFII, 9:45 a. m., The Road of Health; KFAC, 10:30 a. m., Your Doctor and You.

Wednesday, December 27—KECA, 11:15 a. m., The Road of Health.

Saturday, December 30—KFII, 9:45 a. m., The Road of Health; KFAC, 10:30 a. m., Your Doctor and You.

### **Brochure on "Suggestions Concerning the Selection, Construction, and Operation of Recreational Camps."**

An interesting leaflet of some thirty pages on the above topic has recently been brought off the press by J. C. Geiger, M. D., Director of the Department of Public Health of San Francisco. Among major topics discussed are the following: Selecting and Caring for the Site; The Water Supply; Disposal of Fecal Wastes; Disposal of Garbage and Rubbish; The Milk Supply; Other Foods; Control of Flies, Mosquitoes, Other Insects and Vermin; Structures for Kitchens; Artificial Swimming Pools; Special Provisions for Children's Camps. A list of references is also given.

\* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

**Low Cost Medicine for Farms Urged.**—Oroville, November 3.—Butte County Farm Bureau directors yesterday adopted a resolution urging a program of low-cost hospitalization and medical care for farm families. The resolution will be presented for additional approval at the California Farm Bureau Federation convention in San Diego on November 12 to 16.

The directors protested the practice of establishing a minimum wage scale for relief recipients which will "make such work more attractive than private employment."—*Sacramento Union*, November 4.

**Professions to Banquet.**—Lawyers, doctors, and dentists of San Francisco today prepared for the first inter-professional banquet in city history, scheduled for December 7 at the Palace Hotel Gold Room.

Initiated by the San Francisco Bar Association, headed by President Hartley F. Peart, the event is inspired by the wish for closer harmony and better mutual understanding between members of the three leading professions.

Only three speeches will be made, it was promised, while guests will be "dealt out" so that all three professions are represented at each dinner table.

Coöperating organizations are the San Francisco County Medical Society, headed by Dr. Edwin L. Bruck, president, and Dr. Henry Garland, secretary; and the San Francisco District Dental Society, headed by Dr. Elwood Frates, president, and Dr. L. R. Musser, secretary.—*San Francisco Call-Bulletin*, November 13.

**Doctors Go to School.**—About seven thousand physicians and surgeons, who believe they are never too old to learn, assembled in Chicago the other day to participate in a six-day postgraduate course. Medical men from all over the world converged on Chicago to check up on new developments in the profession during the past year.

New drug compounds, new therapeutic devices, new treatments, new antitoxins, are being discovered all the time. The training physicians receive in medical schools becomes only background for deeper study. And the Chicago meeting is not a pink tea affair nor a hilarious vacation away from duty. It is an earnest study session.

A few other professions might take a clue from the doctors. Instead of gathering annually for a few hours of perfunctory sessions and an endless succession of social functions, they might devote themselves to some solid days of studying the new developments in their respective fields. Keeping up with their own worlds is just as important for lawyers, accountants, engineers, bankers, and real estate men as it is for medical men. And a lot of educators could well take postgraduate courses in economics, sociology, and political science, almost any time.—*Santa Ana Register*, November 14.

**Health Setup for Jobless Is Urged.**—San Francisco, November 15 (UP).—The need for a state-wide program of medical aid for the unemployed and migrants of California was emphasized today by Dr. A. E. Larsen, Medical Director of the State Relief Administration, in an address before the Public Health League of California.

Doctor Larsen said the growth of unemployment and relief in the state since 1930 had created an entirely new health problem—medical care for indigents.

"Improve the health of indigents 50 per cent," he said, "and you will improve general health 100 per cent."

He urged a permanent indigent health program, operating on an independent basis, and giving complete medical care for the needy through a system of clinics located throughout the state.

Doctor Larsen said low standards of health among California's unemployed constitute a menace to general health.

The \$2,000,000 spent each year in California by state and federal agencies is not sufficient to meet the indigent problem, he said, and the \$750,000 spent by the State Relief Administration each year on medical care for relief clients is limited primarily to emergency treatments with no provisions for hospital care or the correction of chronic physical disabilities.

Doctor Larsen advocated a \$2,000,000 SRA medical program, giving complete care for relief clients. He said the program would have millions of dollars in tax funds by preventing sickness and restoring working ability to those forced to go on relief through physical ailment.—*Hanford Sentinel*, November 15.

**University of California Medical School: Course.**—The University of California Medical School will offer a course for general practitioners at the University of California Hospital in San Francisco from January 3 to 6, 1940. The subject will be "Recently Acquired Knowledge Applicable in Practice." The course has been designed to meet the needs of the physician in private practice. Many of the discussions will be illustrated by patients, lantern slides, and pathological material. It is anticipated that there will be a large attendance.

**Shellfish Quarantine Ends.**—The order issued by the California Board of Public Health on May 31, 1939, establishing the quarantine of all mussels along the ocean shore of California, extending from the southern boundary of Los Angeles County north to the California-Oregon boundary, with the exception of the bay of San Francisco; and the order issued on June 27, 1939, establishing the quarantine of all clams and oysters from the ocean shore of Monterey and Santa Cruz counties were rescinded on September 30, 1939.

**Meetings on Health Museum: Would Represent the Entire West.**—Museum directors and medical leaders in the city are busy with conferences over a plan that concerns both groups—a Museum of Public Health, representing California and the entire West and dedicated to educating the public on health problems.

A meeting of health agency representatives, sponsored by the American Public Health Association, Western branch, brought the museum plan to light recently during an address by Dr. Guy S. Millberry, Chairman of the Association's Public Health Committee. Under consideration for several years, he said, the exhibits of medical science from the Exposition might form a workable nucleus for the display. Tentative plans were for health directors to affiliate with the California Academy of Sciences in laying plans for the museum.—*San Francisco News*.

**Public Health Museum.**—Coöperation between the Western Branch, American Public Health Association, and the California Academy of Sciences to establish here a museum of public health and hygiene, as suggested at a meeting last week, would seem to assure success of the project.

As to the desirability of such a museum, both from the standpoint of public health education and interest in the exhibits at the Academy's building in Golden Gate Park, there can be no question.

No more convincing proof of this could be asked than the great popular interest taken in the public health exhibits in the Hall of Science at the Exposition.

It is these exhibits the promoters of the plan are counting on to form the nucleus of a permanent display for San Francisco, to be housed, preferably, in the Academy's museum.

We would like to see the fullest coöperation by the two organizations named and the city authorities toward adding this further important facility to the public education system of San Francisco.—*San Francisco News*, November 13.

**American Laryngological, Rhinological, and Otolological Society, Inc.: Program of the Western Sectional Meeting.**—The meeting will be held on Friday and Saturday, January 26 and 27, 1940, in Los Angeles, under the chairmanship of Pierre Viole, M. D. Headquarters for the meeting will be the Los Angeles County Medical Association Building, 1925 Wilshire Boulevard, Los Angeles. The meeting will commence on Friday noon. The program follows:

*Luncheon.*

*Welcoming Address*, by J. MacKenzie Brown, M. D., President-Elect.

*Business Meeting.*

*Labyrinthine Examinations in Aviation*, by William J. McNally, M. D., Montreal, Quebec, Canada.

*A Brief Critique of Some of the Therapeutic Measures Now in Vogue in Otolaryngology*, by George L. Tobey, Jr., M. D., Boston, Massachusetts.

*Nystagmography: A Method for the Graphic Recording of Postrotatory and Caloric Nystagmus*, by Fred H. Linthicum, M. D., Los Angeles.

Discussion by William J. McNally, M. D., Montreal; Isaac H. Jones, M. D., Los Angeles.

*Tumor of the Pituitary Gland, Paget's Disease, and Abscess of the Sphenoid Sinus, with Case Report*, by C. W. Pond, M. D., Pocatello, Idaho.

Discussion by Colby Hall, M. D., Los Angeles; Fred H. Linthicum, M. D., Los Angeles.

*The Allergic and Nonallergic Nose (Physiology)*, by Robert R. Montgomery, M. D., Long Beach.

Discussion by Charles C. Coghlan, M. D., Los Angeles; Victor C. Goodhill, M. D., Los Angeles.

*Recent Experience with Facial Nerve Repair*, by Robert C. Martin, M. D., San Francisco.

Discussion by Pierre Viole, M. D., Los Angeles; George Patterson, M. D., Los Angeles.

*Evening—Dinner Dance at Earl Carroll's Theater.*

SATURDAY MORNING—PROMPTLY AT 9:30 A. M.  
(Morning Session Only)

*Osteomyelitis of the Frontal Bone, with Case Reports*, by Arthur C. Jones, M. D., Boise, Idaho.

Discussion by David Higbee, M. D., San Diego; Joseph B. Stevens, M. D., Los Angeles.

*The Lempert Operation, with Case Reports*, by Frederic G. Sprowl, M. D., Spokane, Washington.

Discussion by Sylvan S. Goldberg, M. D., Los Angeles; Simon Jesberg, M. D., Los Angeles.

*Osteogenesis of Experimental Fistulae*, by Louis K. Guggenheim, M. D., Los Angeles.

Discussion by Clarence M. Hyland, M. D., Los Angeles; Edward C. Sewall, M. D., San Francisco.

*Osteoma of the Maxillary Sinus, with Case Report*, by Aubrey G. Rawlins, M. D., San Francisco.

Discussion by Harold A. Fletcher, M. D., San Francisco; William J. Mellinger, M. D., Santa Barbara.

*Selection of Treatment for Carcinoma of the Larynx*, by Simon Jesberg, M. D., Los Angeles.

Discussion by Ben R. Dysart, M. D., Pasadena; Harrington B. Graham, M. D., San Francisco.

Arrangements to play golf will be made for those desiring to do so on Saturday afternoon.

Entertainment will be provided for the ladies on Friday afternoon and Saturday.



**Dr. W. A. Swim Named on Board of Medical Examiners.**—Appointment of Dr. W. A. Swim, Los Angeles physician who attended Governor Culbert L. Olson following his illness in Sacramento, as a member of the State Board of Medical Examiners, was announced today. . . . —Los Angeles *Herald and Express*, November 3.

**"Recently Acquired Knowledge Applicable in Practice."**—The University of California Medical School announces a series of talks to be given at the University of California Hospital, Medical Center, San Francisco, on January 3 to 6, 1940. The arrangements for the course will be under Dr. G. E. Hein. Further information may be obtained by writing to University of California Medical School, The Medical Center, San Francisco.

**Initiative Reform Urged.**—New pension plans and cure of the initiative evil today occupied the interest of state business and political circles as Tuesday's election became history. . . .

With results of the Tuesday, November 7, 1939, election 99 per cent tabulated, the Associated Press reported the following:

Proposition	For	Against	Precincts
Ham and Eggs, 1.....	975,410	1,883,484	10,938
Chiropractic, 2.....	785,269	1,852,902	10,931
Loan Act, 3.....	1,814,133	727,725	10,931
Loan Act, 4.....	1,811,768	712,963	10,934
Oil Bill, 5.....	1,078,870	1,723,990	10,934

—San Francisco *Call-Bulletin*, November 10.

**"Health Officers' Manual."**—The latest book authored by Dr. J. C. Geiger, Director of the San Francisco Department of Health, was recently given high praise by *The Journal of the American Medical Association*.

Titled "Health Officers' Manual," the book was published by W. B. Saunders Company of Philadelphia and London.

"The manual is well written, is easily read, and should serve as a useful guide to health officers in the administration of a balanced public health program," the review in the Association journal states.

"While primarily intended for those actively engaged in public health activities, this manual could be read with interest by the average lay person and would give him, in not too complicated form, a sufficiently comprehensive idea of modern trends in public health," the review concludes.

The manual presents a comprehensive outline for operation of a health department.—San Francisco *Examiner*, November 14.

**American Academy of Ophthalmology.**—Dr. Frank R. Spencer of Boulder, Colorado, was chosen president-elect of the American Academy of Ophthalmology and Otolaryngology at the annual session in Chicago, Wednesday night, October 11. . . .

The Academy also decided to act as sponsor for a proposed Pan-American congress of ophthalmology and otolaryngology. South American physicians attending the meeting in Chicago will arrange for the attendance of delegates from their respective countries to such a congress to be held in connection with the next meeting of the Academy, it was said.

It is understood that invitations to each of the countries concerned will have the sanction of the Department of State and will be forwarded through diplomatic channels.

Other officers elected were Drs. Arthur W. Proetz of St. Louis, first vice-president; Joseph F. Duane of Peoria, Illinois, second vice-president; and Charles T. Porter of Boston, third vice-president; Secord H. Large of Cleveland, comptroller; and William P. Wherry of Omaha, Nebraska, executive secretary, reelected. The headquarters office is 1500 Medical Arts Building, Omaha, Nebraska.

Dr. Erling W. Hansen of Minneapolis was elected secretary for public relations, succeeding Dr. Ralph A. Fenton of Portland, Oregon, who resigned. The following secretaries were reelected: Drs. William L. Benedict of Rochester, Minnesota, for ophthalmology; John L. Myers of Kansas City, Missouri, for otolaryngology; Dean M. Lierle of Iowa City, for instruction in otolaryngology; and Albert D. Ruedemann, for instruction in ophthalmology. Dr. Albert C. Snell of Rochester, New York, was elected a member of the Academy's governing council, and Dr. Frederick C. Cordes of San Francisco, to represent the Academy on the American Board of Ophthalmology. . . .

**Humboldt County Medical Society Entertains Guest Speakers.**—This evening, in the Eureka Inn, the Humboldt County Medical Association will hold their annual dinner and business meeting, at which Dr. Charles A. Dukes of San Francisco will address the group.

Doctor Dukes, President of the California Medical Association, will discuss the gathering on business affairs pertaining to the Association's policies.

Others who will speak include Dr. George H. Kress, Secretary of the California Medical Association, and Dr. Henry S. Rogers, District Councilor.

Following the dinner meeting the annual scientific session will be held. At this time Dr. Albert Rowe of Oakland will discuss the subject, "Clinical Allergy."

Presiding at the session will be Dr. Samuel P. Burre, President of the Humboldt Medical Association. He will be assisted by Dr. John S. Chain, vice-president; Dr. J. S. Woolford, secretary; and Dr. John Lane, treasurer.

While the men are conferring, their wives will be meeting at 7:30 at the Inn, where they will discuss the possibility of forming a Woman's Auxiliary to the California Medical Association for Humboldt.

Mrs. B. M. Marshall will be in charge, with Mrs. Harry O. Hund of San Rafael as the principal speaker.—Eureka *Times*, November 2.

**California Syphilis Law.**—"Young couples facing marriage are beginning to realize California's law requiring premarital tests for syphilis is beyond reproach. They know they are viewed with suspicion if they go to Reno for the ceremony."

Thus spoke Dr. W. M. Dickie, Director of the State Department of Public Health, as he announced results of the law which has been in effect since September 19.

Of the 9,395 persons who received the premarital tests, 118, or 1.25 per cent, gave a positive reaction to a Wassermann test.

"Most states have found that from 1 to 2 per cent of the premarital tests are positive. Thus the early California results indicate the law is working smoothly, efficiently, and normally, despite the fact it has been in effect less than two months," said Doctor Dickie.

"Reports, while not complete, indicate the drop in marriages is not as great as had been anticipated by persons opposing the law. Several factors now at work should bring the marriage rate back to normal within a few months."

Despite a ruling by Attorney-General Earl Warren that state and local Departments of Health are not compelled by law to give initial blood tests, Doctor Dickie said such service must be provided by the laboratories to qualify for federal money in the venereal disease control program.

**Dr. Walter Scott Franklin Addresses Three Civic Meetings in San Diego.**—Dr. Walter Scott Franklin of Santa Barbara, Vice-President of the California Safety Council, appeared recently at three public meetings in San Diego County in the interest of the traffic accident prevention program of the California Safety Council.

Meetings addressed by Doctor Franklin included the Associated Chambers of Commerce of San Diego County, the San Diego Kiwanis Club, and San Diego Optimist Club.

Highlights of Doctor Franklin's safety addresses at San Diego were:

1. Necessity for impressing into service technically qualified persons to evaluate the traffic accident problem and project constructive programs with citizen coöperation.
2. Development of a community safety consciousness to be maintained every day throughout the year, so that motorists and pedestrians may consciously coöperate in avoiding accidents and thus strive for an "accident-free city."
3. A progressive synchronized "stop" and "go" signal system to facilitate traffic movement.
4. Establishment of scholarships and foundations in traffic research and safety education to provide a corps of experts in this highly complex field of traffic control and regulation.

**Treadway Draws Grim Picture of United States Mental Status.**—One out of every twenty-two children born today will become a patient in a mental hospital, according to present authoritative data. According to the same data, 1,000,000 children now in public schools will suffer a mental breakdown some time in their lives, unless something is done about it. This was stated in a recent lecture by Dr. Walter L. Treadway, chief medical officer of the United States Public Health Service and lecturer in psychiatry in the University of California Medical School.

The number of mental cases per 100,000 population is now more than four times what it was eighty years ago. It is now necessary to spend more than \$200,000,000 annually for mental patients who require segregation.

Regarding the treatment of mental ailments, Doctor Treadway said:

"If physicians of today and tomorrow are to fulfill their responsibility, then it is necessary that they take cognizance of the forces at work in their community as they affect their patients. Mass study of such forces, however, is a function peculiar to the discipline of epidemiology and sociology.

"The recognition, care and treatment of mental illness implies a knowledge of these conditions. While it is true that no state legislature has kept pace with the needs of the mentally ill, nevertheless in those states where mental health administration is directed by medically trained persons, the facilities and public policies affecting the mentally ill are far ahead of those jurisdictions where hospital facilities alone represent the assumed total of a community's obligation and responsibility toward mental disease and disorder."

**Tuberculosis Signposts.**—The sale of Christmas Seals in California in 1938 realized more than \$360,000, and we hope that this year's sale will realize more than \$400,000.

The 1938 sale, which was a record, is concrete evidence of successful work in arousing the coöperation of the people of California in the long war against tuberculosis.

We of the city, county, and state associations know how invaluable the activities of the army of volunteer health workers are to our cause, and how much the efforts of these volunteers have contributed in making our battle a *winning battle*. We also know that without the financial support provided by the sale of seals each Christmastide, our work could not be carried out as it has been and must continue to be.

You, who, through your local associations, have given unselfishly all this year of your time, your skill, and your energy; who have carefully built mailing lists, conducted

health education programs, done the thousand-and-one other things you were happy to do—you have earned the right to know on what we base our estimate that the 1939 Christmas Seal sale will produce an increase in excess of 10 per cent over that for 1938.

Plan as skillfully as we may, work as industriously as we can, if business conditions in California *are not good*, our sale of seals will be necessarily limited. Therefore, it is pertinent to examine the evidence of improvement in general business in the state. We offer the following items as illustrative of general improvement:

First: Retail sales in California are approximately 5 per cent ahead of last year.

Second: Loadings of incoming freight are at their highest point since 1929.

Third: Bank debits (an index of money turnover) in the fifteen principal cities of California for the week ending September 27 were 13.9 per cent ahead of the corresponding week in 1938.

Fourth: Prices of agricultural products are showing a steady increase due to conditions in Europe.

Fifth: Sales of automobiles for the first eight months of 1939 are 18 per cent ahead of the corresponding period last year.

Sixth: A survey recently completed of business and industrial leaders in the state disclosed these predictions for the last six months of this year, as compared to the second half of last year, namely, that general business will show a gain of 9 per cent; pay rolls, 4 per cent; and employment, 4 per cent.

Here, then, are the signposts on the road of the financial progress of our state. We know, and you must realize that they point to our success. Let us resolve not to fail this year, but rather, through our united efforts, achieve our goal.—*News Letter*, California Tuberculosis Association.

**Medical Chief of Farm Health Group Is Named.**—San Francisco, November 8.—The appointment of Dr. A. E. Larsen as medical director of the Agricultural Workers Health and Medical Association in California and Arizona was announced here today by Laurence I. Howes, Jr., acting regional director of the Farm Security Administration.

In connection with those cities, Larson also will be the medical consultant to the FSA in the western region. . . .

The Agricultural Workers Health and Medical Association is a quasi-public corporation administered by the FSA, the State Relief Administration, California Medical Association, and the State Department of Public Health. Its medical aid is extended exclusively to rural areas among agricultural workers and other low-income farm groups.

#### Issues Statement

In commenting on his appointment, Larsen stated:

This medical association opens new horizons in the field of public health service, particularly among migratory workers. Its purpose is to preserve health and provide a minimum of medical care for persons who have been unable to afford the standards of care which American civilization demands.

"Such a program pays dividends because it not only improves individual health, but also safeguards public health generally," said Doctor Larsen. "By reducing disease and preventing the spread of epidemics, hundreds of thousands of dollars are saved for taxpayers. Moreover the tremendous load on county hospitals is lightened."

Twelve offices have been established in California for the administration of the service. Any eligible worker in need of medical care receives a membership card in the Association entitling him to treatment by a physician of his own choice, whom he selects from a professional panel.—*Modesto Bee and News Herald*, November 8.



## LETTERS

**Subject: Purpose and need of support to "National Physicians' Committee for the Extension of Medical Service."**

(COPY)

### NATIONAL PHYSICIANS' COMMITTEE FOR THE EXTENSION OF MEDICAL SERVICE†

A nonpolitical, nonprofit organization for maintaining ethical and scientific standards and extending medical service to all the people

John M. Pratt, *Executive Administrator*

Chicago, November 16, 1939.

*To the Editor:*—Enclosed is a little booklet, "The Achilles Heel of American Medicine."\* It can be read in five minutes. Quickly, concisely, it gives the details of a situation that is of vital importance. We believe you will be interested.

The folder attached lists the personnel of the initial Central Committee of this group that has undertaken to seriously consider and effectively deal with this truly important problem. It is a gigantic and difficult task that has been undertaken.

This is not just another appeal for money. It is sent in the hope and expectation of vigorous support and coöperation. To a large extent, the degree of effectiveness—or lack of it—will be determined by the energy that must be used in merely securing financial support.

Will you please read the little booklet twice? Will you carefully consider the stated objectives and appraise the personnel? Then, if you are in sympathy, will you use the little slip enclosed and on it indicate the extent of the support you will give?

The Committee's first bank deposit was \$4,000—four one thousand dollar checks. One of these was from a well-known clinic. There will be important lay support of this effort—*If the doctors do their part. We need \$250,000.*

There are two needs. First, for immediate funds for preliminary efforts; second, for sustaining funds payable quarterly or monthly. Some can aid to the extent of \$1,000 or more; some \$500; some \$100; others to the extent of \$50, \$25, \$10, or \$5. We want support only in proportion to ability. We hope you will feel that, in this case, generosity will be well justified.

Please, may we have your opinion—and your contribution in an amount as large as you can afford.

700 North Michigan Avenue.

Sincerely yours,

NATIONAL PHYSICIANS' COMMITTEE FOR THE  
EXTENSION OF MEDICAL SERVICE.

N. S. Davis, III, *Treasurer.*

† † †

(COPY)

November 2, 1939.

*To the Editor:*—The men within the medical profession must determine what its future is to be. In this belief, steps have been taken to set up an organization of physicians whose purpose is to make every effort to safeguard the independence and the standards of American Medicine, and to aid in providing the public with the utmost in medical service.

These preliminary steps have resulted in establishing an initial executive board. Its personnel is shown on this

\* The brochure, "The Achilles Heel of American Medicine," appears in this issue on page 360.

† Executive Board: Dr. Edward H. Cary, chairman, Dallas; Dr. Austin Hayden, secretary, Chicago; Dr. N. S. Davis, III, treasurer; Dr. Irvin Abell, Louisville; Dr. F. F. Borzell, Philadelphia; Dr. William F. Braasch, Rochester; Dr. John A. Hartwell, New York; Dr. Roger I. Lee, Boston; Dr. Alphonse McMahon, St. Louis; Dr. E. H. Skinner, Kansas City; Dr. Charles B. Wright, Minneapolis.

letterhead. The general outline of its objectives is enclosed in the form of a memorandum. Please read it carefully.

The Executive Committee has invited John M. Pratt, formerly Director of Activities of the Physicians' Committee for Free Enterprise in Medicine, to act as executive Administrator. Mr. Pratt has resigned from the National Committee to Uphold Constitutional Government in order to accept this invitation. . . .

Sincerely yours,

NATIONAL PHYSICIANS' COMMITTEE FOR THE  
EXTENSION OF MEDICAL SERVICE.

Austin Hayden, *Secretary.*

**Subject: Examinations for registered nurses.**

THE CALIFORNIA STATE NURSES' ASSOCIATION, INC.

San Francisco, November 10, 1939.

*To the Editor:*—May we ask that you publicize the following information, as we believe physicians will be interested in helping older nurses not registered to become registered nurses.

A special examination for graduate nurses who are not now registered but wish to continue to practice as graduate nurses after March 1, 1940, will be held on January 24, 1940.

This is of interest particularly to nurses who have been graduated for some time. Applications may be secured from Board of Nurse Examiners, 515 Van Ness Avenue, Room 210, San Francisco; State Building, Los Angeles, Room 906; State Office Building, Sacramento, Room 401.

Completed applications must be on file in Sacramento not later than January 3, 1940.

609 Sutter Street at Mason.

Sincerely yours,

HARRIOTT L. P. FRIEND,

*Director at Headquarters.*

**Subject: 1939 Christmas Seal sale of the California Tuberculosis Association.**

CALIFORNIA TUBERCULOSIS ASSOCIATION

San Francisco, November 10, 1939.

*To the Editor:*—We are sending you the enclosed copy with the hope that you might find space for it in the December issue of CALIFORNIA AND WESTERN MEDICINE.

Your generous coöperation in carrying material about our work and annual Seal sale in past years has prompted us to again seek your assistance.

45 Second Street.

W. F. HIGBY, *Executive Secretary.*

† † †

(COPY)

### TUBERCULOSIS AND THE ADULT

The program of the California Tuberculosis Association is generally known to physicians throughout the state. They are familiar with school tuberculosis examinations sponsored by local medical societies and partly or wholly financed by Christmas Seal funds in nearly every county in the state. These are conducted to demonstrate the value of the tuberculin test and chest x-ray as a case-finding and health education procedure. They are also familiar with the follow-up school program in which public health nurses are hired to contact the family of students who react to the tuberculin test, and endeavor to bring the whole family to their own doctor for examination.

Last year 84,887 students and school employees were examined by tuberculosis associations in California working in coöperation with state and local medical associations, health departments, school departments, and civic organizations. Of the total tested, 17,676, or 21 per cent, reacted, and 234 cases of adult type tuberculosis were dis-

covered. Testing was done in fifty counties. To date, more than 300,000 have been tested in school surveys conducted in this state.

Also familiar to physicians are the medical meetings and consultative clinics on tuberculosis which the California Tuberculosis Association has arranged in all parts of the state upon the invitation of local county medical societies. Physicians and chest specialists have now conducted consultative clinics in all but three counties in the state.

As the value of school surveys, follow-up programs and consultative clinics has been demonstrated, the tuberculosis associations in California are turning to the medical profession for advice in another phase of the tuberculosis control problem—that of adult health education and case finding.

Domestic help is not an infrequent source of infection of children. The fact that cooks and waiters show the third highest rate of mortality from tuberculosis of all employed groups is occasion for serious thought. Industrial workers represent a large segment of our population which needs to know about tuberculosis prevention and control. Examinations among these groups will apparently reveal a much higher proportion of active cases than have been brought to light in the schools.

Recently compiled statistics show us that while tuberculosis is a greater danger to the young woman than the young man between the ages of 15 and 30 years, it is of greater danger to young men after thirty. It is after thirty that heavy demands are made upon the man's physical reserve. As the provider for the family, his efforts are expended upon holding his job. The demands of his work, continued physical and mental strain, combined with the fact that he too often is unwilling or unable to keep in optimum physical condition, tend to decrease his power of resistance to disease. At this time of life he fails to heed the subtle signs of approaching illness.

These facts point to the importance of an intensive industrial program designed both to disseminate health education and to induce many industrial workers to be examined by their family physicians. Plans are now being made by tuberculosis associations in California for the 1940 Early Diagnosis Campaign which will place emphasis upon adults and stress as its theme, "The X-ray Reveals Tuberculosis Before Symptoms Appear." For this campaign, which is held every spring, intensive medical and educational programs are prepared.

The success of the annual campaign in California is due to the full and generous cooperation of the medical profession. Not only do local physicians in all parts of the state take an active part in planning the programs of local associations, but they are untiring in the services which they perform in carrying out these programs.

As the emphasis of the voluntary tuberculosis program supported by the annual sale of Christmas Seals turns to the problem among adults, the initiative of the family physician becomes increasingly more important. Because the physician is already taking a leading rôle in the definition and administration of such adult programs, we may look with confidence for a continued reduction in the tuberculosis death rate.

#### Subject: Epilepsy reportable: Definition.

STATE OF CALIFORNIA  
BOARD OF PUBLIC HEALTH  
SACRAMENTO

San Francisco, November 3, 1939.

To the Editor:—At its regular meeting held October 7, 1939, the California State Board of Public Health defined "epilepsy" by regulation as follows:

"Any condition which brings about momentary lapses of consciousness, and which may become chronic, shall be considered reportable under the term 'epilepsy.'"

The California Legislature of 1939 made epilepsy a reportable disease in California, and physicians are now required to report cases to the local health officers, who will, in turn, report to the California State Department of Public Health.

That department will advise the State Department of Motor Vehicles of cases reported in individuals whose age entitles them to receive licenses to drive automobiles. Such licenses may not be issued to individuals whose physical condition might lead to traffic accidents, and it is anticipated that the official reporting of epilepsy will lead to effective results in making state highways more safe.

313 State Building.

Very truly yours,

W. M. DICKIE, *Executive Officer.*

#### Subject: Prevention of traffic accidents.

(COPY)

CALIFORNIA SAFETY COUNCIL, INC.

"A Statewide Citizens' Traffic Accident Prevention Agency"

November 1, 1939.

To the Editor:—California is faced with one of the worst accident records in its history as 1939 draws to a close.

To help combat careless and indifferent driving and walking, and to stem the tide of traffic casualties in so far as we can, we have made arrangements with Foster and Kleiser for the posting of a series of billboards throughout the state, directing attention to some of the fundamentals of safe driving.

The space is to be donated by Foster and Kleiser as their contribution to public safety. . . .

1 Drumm Street, San Francisco.

610 South Main Street, Los Angeles.

Sincerely yours,

FRED D. PARR, *President.*

1 1 1

(COPY)

SAFER DRIVING: WAYS IN WHICH ALL MOTORISTS  
MAY HELP

"The problem of accident prevention may be likened to that involved in an epidemic which can be controlled, not only by a strictly scientific approach by well-qualified physicians and many other medical specialists and sanitary engineers, but also by the willing cooperation of the vast majority of our citizens—in our case by drivers and pedestrians."

So said George E. Coleman, Director, the other day in announcing the appointment by the California Safety Council of a special committee to seek greater safety in motoring.

He pointed out that the great majority of the public is fully competent to take to itself any new conditions or restrictions in driving now on the statute books, or to be placed there.

There are, however, after making due allowance for those willing and anxious to cooperate in safety measures, about "10 per cent of drivers who, because of low-grade intelligence or other anomalies, are not amenable to education"; and these, "if we continue to allow them to drive, must remain a menace on our highways."

The new committee plans to accumulate more data concerning the rôle played by physical disabilities, such as impaired eyesight, nervous, mental, circulatory and other disorders, as well as the age factor.

It is urged by Mr. Coleman that licenses should be issued at least once a year, and perhaps oftener.



Faulty hearing, he says, is not a handicap like faulty eyesight, as deaf-mutes "have proved themselves nearest perfect in all Pennsylvania's thousands of motorists, according to statistics compiled by the Keystone Automobile Club."

The Committee will further inquire into the issuance of licenses, correlation of accident records, effect of the practice of recording law infractions or accident records on the back of drivers' licenses, and various other conditions.

The Committee has a big job cut out for itself, and its report when made will demand attention by all interested.

(COPY)

#### WALK WITH CARE, SAFETY COUNCIL URGES; PEDESTRIAN DANGER TOLD

Most persons killed or injured in traffic accidents in cities are pedestrians, and most of these accidents occur after dark, according to the California Traffic Safety Council which is aggressively conducting a campaign to advise pedestrians and motorists to cooperate in avoiding such accidents.

The Safety Council points out that in some metropolitan areas 79 per cent of the pedestrians involved are killed at night. The Safety Council suggests that pedestrians can avoid accidents by obeying a few simple rules, as follows:

1. Watch for the lights of an automobile and wait until the car passes. It is easier for the pedestrian to see the automobile lights than it is for the motorist to see the pedestrian—especially when turning around corners.

2. Strictly obey the traffic signals—day or night—and do not jaywalk. Most pedestrian accidents of the more serious character occur out in the residential districts, where the average automobile speed is higher than downtown.

3. Wear something white. It is easier for a motorist to see white at night. Most pedestrian victims, according to police and coroner's reports, are dressed in dark clothes.

The California Safety Council is assisting local groups in reducing pedestrian hazards, according to Fred D. Parr, President of the Council. Children and aged people are vulnerable, he added.

#### Subject: National Society for the Prevention of Blindness, Inc.

The National Society for the Prevention of Blindness, Inc. (Incorporated in the State of New York), is rendering a service throughout the United States. It is a membership and nonprofit health organization, supported by voluntary contributions, membership dues, legacies and bequests; it receives no federal, state, or city aid, nor grants from any Community Chests. It is endorsed by the National Information Bureau, Inc., 215 Fourth Avenue, New York, N. Y., and is a member of the National Health Council, 50 West Fiftieth Street, New York, N. Y.

This corporation is concerned with the control, and, where possible, the elimination of the causes of blindness, impaired vision, and eyestrain—not with the activities on behalf of those already blind. In this respect it operates in a field peculiarly its own and performs a much needed service to society. Particular attention is given to:

1. Cooperating with the medical profession in devising measures and instituting procedures for the conservation of vision and the reduction of blindness.

2. Collaborating with those in industry who are striving to reduce eye injuries and eyestrain.

3. Assisting nurses to become increasingly aware of their opportunities for conserving sight; and of the relationship between eye health and general health.

4. Demonstrating the value of trained medical social workers in eye hospitals and clinics and helping such workers to secure specialized training.

5. Cooperating with educational authorities in:

- (a) Conserving the vision of school and college students.

- (b) Establishing sight-saving classes for children whose vision is so defective that they cannot profitably use ordinary school equipment.

- (c) Providing specialized training for teachers of sight-saving classes.

- (d) Helping student-teachers secure better preparation for meeting the eye health problems of school children.

6. Stressing the value of properly caring for the eyes of preschool children, and demonstrating an approved method of testing their vision in order to discover those who will benefit from early treatment.

7. Furthering the universal use of preventive measures before and at birth to protect babies' eyes from infection.

8. Encouraging adequate prenatal care for every expectant mother, including a blood test and treatment when necessary as the means of preventing blindness from prenatal syphilis.

9. Furnishing information regarding the relationship between the conservation of vision and numerous environmental factors including: quality and intensity of illumination, size and style of type, quality of paper, etc.

10. Stimulating further investigation and study of the causes of blindness and impaired vision.

11. Counselling governmental and voluntary agencies working for the conservation of vision.

12. Serving as a clearing-house on all matters pertaining to the prevention of blindness and the conservation of vision; providing the public with information concerning the care and use of the eyes.

The nature of the Society's work is such that its public usefulness can be materially enhanced by any increase in its resources. There are numerous fields in which it could be of great public benefit, but from which the Society is now precluded, or in which its activity is limited, for lack of sufficient funds.

Inquiries for further information welcomed.

50 West Fiftieth Street, New York.

Subject: Nomenclature of disease: Re poliomyelitis.

CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF PUBLIC HEALTH

November 22, 1939.

To the Editor:—For your information, I am attaching hereto a copy of a letter addressed to Dr. W. C. Dickie, Director, State Department of Public Health, regarding reporting of virus diseases.

101 Grove Street.

Sincerely,

J. C. GEIGER, M. D., *Director.*

(COPY)

CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF PUBLIC HEALTH

November 17, 1939.

My dear Doctor Dickie:

The diagnosis of virus diseases has brought forth a considerable amount of confusion as to clinical entity, with the result that many statistical errors must have been recorded. This is particularly true in respect to the disease acute anterior poliomyelitis. This disease today is not infrequently confused with some type of acute encephalitis and at other times with encephalomyelitis, or with choriomeningitis. Careful clinicians in this city have at times found it necessary to change the original diagnosis as first reported to the San Francisco Department of Public Health due to subsequent laboratory evidence. For virus disease investigation, several weeks are often needed.

After conference with the San Francisco Department of Public Health Committee on Poliomyelitis, it was agreed that a new policy should be adopted relative to the diagnosis and reporting of virus diseases.

Acute cases showing no muscular weakness or paralysis in the group which might be labeled poliomyelitis, should be tentatively diagnosed acute neurotropic virus disease. These cases should be thoroughly studied, especially re-

garding laboratory tests of the blood and spinal fluid. When the diagnosis is finally made, such diagnosis should be sent to the State Department of Public Health. In the meantime the usual routine epidemiological studies, including isolation and quarantine of the patient and contacts would be carried out.

Would it be possible to arrange for this change in reporting to the State Department along the lines suggested above. I feel sure it would result in much more accurate figures, especially for poliomyelitis.

Sincerely,

J. C. GEIGER, M. D., *Director.*

## MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, Esq.  
San Francisco

### Statutes Enacted by the 1939 Legislature Which Are of Interest to the Medical Profession.

Two of the most important laws passed by the 1939 legislature were the measures providing for premarital (Chapter 127) and prenatal examination (Chapter 3822). Since these measures have received lengthy discussion in several articles (see September, 1939, issue of CALIFORNIA AND WESTERN MEDICINE at page 200), they will not be reviewed here.

Other laws were passed which, although they have not received as much publicity as the premarital and prenatal examination laws, should be of interest to a large body of the medical profession.

#### Chapter 360. Qualifications of Drugless Practitioners.

Qualifications of drugless practitioners have been raised to require a study course of not less than 3,000 hours as compared to 2,000 hours required previously. The course of study must include anatomy, histology, elementary chemistry and toxicology, physiology, elementary bacteriology, hygiene, pathology, diagnosis, manipulative and mechanical therapy, gynecology, and obstetrics.

#### Chapter 1021. Chiroprodists.

This chapter requires all applicants graduating from a chiropody college after January 1, 1941, to have had one year of resident work of college grade before entering the chiropody college in a school approved by the Board of Medical Examiners.

#### Chapter 250. Medical Services Plans: Pay-Roll Deduction for Public Employees.

This chapter authorizes governing bodies of counties, school districts, municipal corporations, political subdivisions, public corporations and other public agencies to adopt and carry into effect a system of medical and hospital service through nonprofit corporations. The system applies to all employees who may elect to accept it, and who have authorized the governing body to make pay-roll deductions. Membership is, therefore, voluntary, but can apparently be paid for only by the pay-roll deduction method. The system must be open to participation by all licentiates of the particular class (doctors of medicine, osteopathy, chiropractic, etc.), offering services through such corporation.

The statute also authorizes the governing bodies to adopt and carry into effect systems of group life, accident and/or health insurance or to purchase group policies of life, health and/or accident insurance, both on the basis of voluntary acceptance by the employee.

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

#### Chapter 112. Municipal Hospitals in Fifth and Sixth Class Cities.

This measure permits these hospitals to enter into non-profit hospital service plan contracts.

#### Chapter 281. Qualifications of Applicants for Physicians' and Surgeons' Certificates.

Article 5 of the Business and Professions Code has been amended to change the qualifications for the certificate to practice medicine. For further information concerning qualifications, the Code itself should be consulted.

#### Chapter 341. Internship.

Section 2147.5 has been added to the Business and Professions Code and changes the regulations concerning practice of medicine or osteopathy by students and graduate students who are not yet holders of a certificate to practice. The section provides that graduate students of approved schools of medicine or osteopathy, or regularly matriculated students in approved schools, may as a part of their course of study treat the sick either in their school or as an interne in a hospital approved for the training of internes and receive from the school or hospital compensation for such services. However, the section limits to two years the period within which students and graduate students can perform the above services without being licensed to practice medicine and surgery.

#### Chapter 343. Use of the Title "Doctor."

Section 2409 has been added to the Business and Professions Code and provides:

Unless a person licensed and authorized under this chapter or any preceding medical practice act to use the title "doctor" or the letters or prefix "Dr." holds a physicians' and surgeon's certificate, the use of this title or these letters or prefixes without further indicating the type of certificate he holds, constitutes unprofessional conduct within the meaning of this chapter.

#### Chapter 344. Use of Term "Drugless Practitioner."

Section 2142.5 has been added to the Business and Professions Code and reads as follows:

Any person who uses in any sign or advertisement the word, term or suffix "drugless practitioner" without having at the time of so doing a valid, unrevoked certificate, as provided in this chapter, is guilty of a misdemeanor.

#### Chapter 955. Licensing of Dispensing Opticians.

This law provides for the licensing by the Board of Medical Examiners of persons engaged in filling optical prescriptions for physicians licensed by that board. Licensed optometrists or physicians and surgeons are exempt unless they are exclusively engaged in the business of filling prescriptions for physicians and surgeons, in which case they, too, must procure such a license.

#### Chapter 467. Internes in State Hospitals.

Internes in state hospitals may now be classified as "senior internes" who must have a certificate from the State Board of Medical Examiners (which is the present requirement for all internes) and "student internes" who must have such certificate or be eligible to take an examination for it.

#### Chapter 1097. Narcotic Prescriptions.

All prescriptions of narcotics are now required to be in handwriting and on forms issued by the Division of Narcotic Enforcement. Prescriptions for certain codein preparations of United States Dispensatory as well as those of United States Pharmacopoeia and National Formulary are exempt.

Other measures were passed dealing with insane persons, crippled children, and hospital regulation. However, since these measures are of interest to specialized groups only, they will not be fully discussed here.



## TWENTY-FIVE YEARS AGO†

### EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XII, No. 12, December, 1914

*From Some Editorial Notes:*

*Christmas Greetings.*—This number of the JOURNAL completes the twelfth volume and is the end of another year. It has been a very large year and indeed filled with surprises and awful shocks. But we, on this edge of the world, can be very thankful for our position, and for the fair degree of prosperity that has been vouchsafed to us. Trying times are with us and trying days are to come. To every member the JOURNAL wishes a Christmas present of courage and encouragement; look steadily toward the future as dispassionately as possible, and remember our duties and our rewards in the knowledge of things accomplished, suffering aided and good done. We will all have to economize on some of our luxuries, but let us do it cheerfully and be thankful for the gift of peace that has been given to us to enjoy; just now it is a very rare and precious present.

• • •

*A Word on Papers.*—While on the subject of contributions to the JOURNAL, it may not be out of place to reiterate some suggestions to authors; to some, they may seem trivial, but they are all very essential to acceptance and prompt consideration.

All manuscripts must be typewritten and on one side only of the sheet of paper.

Always leave a margin at the left of the page, at least an inch in width.

Never "single space"; always use the double space in typewriting a paper.

Read over the finished paper carefully, and make sure of the correct spelling of proper names, publications quoted, etc.

Always spell words out in full; do not abbreviate, like "temp." for temperature. Do not try any fancy stunts with "revised spelling," such as "tho" and "thru," etc.

Buy a medical dictionary, and satisfy yourself that all diphthongs, except for the terminal plural, are no longer used.

In making a quotation, be sure that the quotation marks are placed at the end, as well as the beginning of the portion quoted.

Never roll a manuscript; send it flat or folded as many times as you like, but do not roll it. If you want to know why, just roll up some sheets of paper, leave them tightly rolled for a few days and then try to handle them!

Never paste cuts or illustrations on sheets in the middle of a paper. Send them in separately, properly marked with the legend you think should go under them, with your name on the back, and indicate in the paper where you would like them to go.

Put your name and city on the first sheet under the title of your paper. (It would surprise you a whole lot to know how many contributors forget to do this little thing!)

Number the sheets consecutively from first to last.

Case histories should be as carefully written as any other portion of a manuscript, and no abbreviations used.

Ordinary bedside charts, as frequently sent in, cannot be reproduced, but have to be redrawn. Illustrations are seldom necessary, if a paper is well and clearly written.

(Continued in Front Advertising Section, Page 23)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

## BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M. D.  
Secretary-Treasurer

### Board Proceedings

A regular meeting of the Board of Medical Examiners was held at the State Capitol, Sacramento, October 16 to 19, 1939.

Approximately sixty-eight applicants wrote the examination, including physicians and surgeons, drugless practitioners and chiroprodists.

The officers of the Board for the ensuing year were elected as follows:

William R. Molony, Sr., M. D., president.

Clark L. Abbott, M. D., vice-president.

Charles B. Pinkham, M. D., secretary-treasurer.

Printed forms were adopted, under Chapter 955, Statutes 1939, covering registered dispensing opticians.

The so-called Extra-Mural Schools of Great Britain were disapproved because of reports of low standards.

The following actions were taken by the Board following hearings:

Joseph B. Blackshaw, M. D., Edward J. J. Finnerty, M. D., Roscoe Earl Hamlin, M. D., and Roy Paul Woodruff, M. D., were found guilty of narcotic dereliction and penalty was deferred until the October meeting.

Harry Hugh Ellis, M. D., on October 18, 1939, was placed on probation for two years for aiding and abetting.

Stewart J. Fitch, M. D., on October 18, 1939, was placed on probation for a period of five years, based on conviction of a crime involving moral turpitude.

Ralph Wayne Harris, M. D., on October 18, 1939, was placed on probation for five years, without narcotic privileges, based upon conviction of violation of the Harrison Narcotic Act.

Charles C. Landis, M. D., on October 18, 1939, was found guilty of aiding and abetting, and penalty was deferred until the regular meeting of the Board to be held in San Francisco, June, 1940.

The following licenses were revoked:

Lee V. Evitts, licensed chiroprapist, revoked October 19, 1939.

Perley B. Exelby, M. D., revoked October 18, 1939 (aiding and abetting).

Paul L. Markley, M. D., revoked October 18, 1939, based upon record of conviction of violation of the Harrison Act.

Thomas D. Wyatt, M. D., cited on three charges of alleged illegal operation; was found guilty on two charges, and revoked October 19, 1939, on each, the third charge being dismissed.

Hearing on charges of the following individuals cited before the Board were continued to the next regular meeting:

Nathan S. Housman, M. D.

William R. Owens, M. D.

John Marshall Robinson, Jr., M. D.

Gifford L. Sobey, M. D.

Daniel R. Wilson, M. D.

On November 2, Governor Olson announced the appointment of William A. Swim, M. D., Los Angeles, as a member of the Board of Medical Examiners, vice John MacLean, M. D., term expired.

(Continued in Front Advertising Section, Page 28)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.





# St. Luke's Hospital

SAN FRANCISCO

A Limited General Hospital of 200 Beds



## Executive Committee

HAROLD P. HILL, M.D., *Chairman*

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*Superintendent*

## BOARD OF MEDICAL EXAMINERS

(Continued from Front Advertising Section, Page 31)

treating and diagnosing cases, as his healing was a 'harmonizing' of the cosmic body with life forces. . . . In the summary remarks before the jury, District Attorney Carr raised the ire of the crowded court room—followers of Neher—when he accused him of being a 'hypocrite' for saying he held the sole healing power of the Lord, and charging for its use. . . ." (La Verne Leader, October 20, 1939.)

"Holding that a license to practice a profession is a valuable property right which cannot be revoked, except upon competent evidence, Superior Judge Emmet H. Wilson has ordered that a writ of mandate issue compelling the Board of Medical Examiners to restore to Dr. Harry Wilson Boyd his license to practice medicine. The opinion (Los Angeles Superior Court No. 440,247) pointed out that the only evidence offered against Doctor Boyd before the Board of Medical Examiners consisted of hearsay, conclusions of witnesses, and other evidence which would not be admissible in court. . . ." (Los Angeles Journal, November 3, 1939.)

"The City Attorney's legal victory this week in establishing the right of the local government to tax for revenue purposes was of such importance it will overshadow many questions at the City Hall during the next year, or possibly longer. . . . The State Supreme Court decision will cause a bad case of jitters along a wide front as its significance is realized. The ordinances are still in the municipal code, but for five years or so a variety of business and professional people have neglected to pay license fees.

Lower courts held the fees invalid on the ground the city cannot license for revenue, but only to cover costs of inspection and regulation. Now the Supreme Court has ruled otherwise. . . . Bowling alley operators, lawyers, doctors, dentists, real estate, customs and merchandise brokers and persons in dozens of other occupations have become prospective victims of the delinquent tax collector. . . . When the decision becomes final—in thirty days, unless held up by a petition for rehearing—the tax collector could start cracking down. . . ." (San Francisco Chronicle, October 29, 1939.)

"Intensification of the 'clean-up drive' against fraud and forgery in Alameda County election affairs, begun thirty-eight days ago, was ordered by District Attorney Ralph E. Hoyt today as five more felony complaints were filed. . . . The twentieth felony complaint in the district attorney's companion drive against alleged fraud and forgery in the circulation of initiative and referendum petitions was filed today also. It was against Dr. P. Grant Alexander, 1317 Linden Street, Oakland. The complaint was signed by H. C. Volbrecht, 2300 Sixty-third Avenue, Oakland. . . . Search of the records of the State Board of Medical Examiners failed to show the name of Doctor Alexander." (Oakland Tribune, November 1, 1939.)

"A self-styled Indian 'herb doctor' was arrested last night, and a quantity of 'cure-all' medicine seized by Joseph W. Williams, special agent for the State Board of Medical Examiners. The prisoner, being held in the county jail in lieu of \$500 bail, identified himself as Isaiah Conway, 45, formerly of Chico, Butte County. Williams reported

(Continued on Page 36)

# HOW MUCH SUN

## Does the Baby Really Get?

THIS BABY has been placed in the sunlight. (1) The mother discovers the baby is blinking, so she promptly shields its eyes and much of its face from the light. (2) Since the baby's body is covered, the child will then be getting only reflected light or "sky-shine" which is only 50% as effective as direct sunlight as an antiricketic agent (Tisdall). (3) Even if the baby were exposed nude, it has never been determined how much of the ergosterol of the skin is synthesized by the sun's rays (Hess). (4) Time of day also will affect the amount of sunshine or sky-shine reaching this baby's face. At 8:30 A. M., average loss of sunlight, regardless of season is over 31% and at 3:30 P. M. is over 21%. (5) Direct sunlight, moreover, is not always 100% efficient. U. S. Weather Bureau maps show that percentage of possible sunshine varies in different localities, due to differences in meteorological conditions. (6) In cities, smoke and dust, even in summer, are other factors reducing the amount of ultraviolet light.



While Oleum Percomorphum cannot replace the sun, it is a valuable supplement. Unlike the sun, it offers measurable potency in controlled dosage and does not vary from day to day or hour to hour. It is available at any hour, regardless of smoke, season, geography or clothing. A rich source of vitamins A and D, Oleum Percomorphum can be administered in *drops*, which makes it an ideal year-round antiricketic. Use the sun, too.



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FOR GREATER ECONOMY, the 50 cc. size of Oleum Percomorphum is now supplied with Mead's patented Vacap-Dropper. It keeps out dust and light, is spill-proof, unbreakable, and delivers a uniform drop. The 10 cc. size of Oleum Percomorphum is still offered with the regulation type dropper.

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ADAMS MINERAL SPRINGS is one of the seven known iron and manganese bi-carbonate springs in the world, and the only one in Western America.

It is not a cure-all, but it overcomes acid excesses in the body, and is a very mild but wonderfully effective eliminator. The bowels function without spasm, the kidney output is greatly increased, and there is marked drainage of bile from the gall bladder and liver.

There is also some constitutional upset for a few days, particularly in gall bladder cases. But this is soon over and your patient begins to show improvement and is now in condition to profit by any medication you may prescribe. If the case is an operative one, you have improved your patient and made of him a better risk.

We will be pleased to cooperate in any way whatever, and samples of water are yours for the asking.

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MANGANESE . . . . .	1.3 parts per million
IRON . . . . .	12.5 parts per million
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MAGNESIA . . . . .	339.3 parts per million
SODIUM . . . . .	365.0 parts per million
SILICA . . . . .	93.0 parts per million
CHLORINE . . . . .	38.3 parts per million
SULPHATE . . . . .	16.1 parts per million
NITRATE . . . . .	0 parts per million
PHOSPHATE . . . . .	.7 parts per million
CARBONATE . . . . .	1551.4 parts per million
TOTAL . . . . .	2591.4 parts per million

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hotel, open all  
year around.  
3000 feet up  
in the Lake  
County Pines.  
(Since 1870)



## BOARD OF MEDICAL EXAMINERS

(Continued from Page 34)

Conway was selling the panacea at 414 Sixteenth Street, advertising it as a pain-killer and healer. The examiner (special agent) signed a complaint, charging Conway with practicing medicine without a license. Because Conway claimed his medicine is a pain-killer, Williams said he would have the liquid analyzed to discover if it contains narcotics." (Sacramento Bee, November 3, 1939.) Conway is reported to be related to William J. Conway, mentioned in News Items of January, July, October, November, 1931, and January, 1932.

"A prosecution petition for a rehearing in the case of Mrs. Frances Zoffel, asserted nurse-accomplice in a San

## THIS LITTLE GIRL WILL HAVE

A  
HAPPY  
CHRISTMAS  
*but*



Tuberculosis is still the greatest killer of youth . . . and takes fifty per cent more girls than boys between the ages of 15 and 25!

Two modern aids that help the physician detect tuberculosis in its earliest, curable stage are the tuberculin test and the chest X-ray.

Your purchases of Christmas Seals make it possible, not only to teach people that tuberculosis is preventable and curable, but to look for early stages of this dread disease among children who seem to be in good health.

So from now 'til Christmas, mail no letter—send no package—unless it is decorated with the Christmas symbol that saves lives!

The National, State and Local Tuberculosis Associations in the United States



## BUY CHRISTMAS SEALS

Francisco abortion conspiracy, was denied by the State District Court of Appeal yesterday. Mrs. Zoffel was tried as the accomplice of Dr. Clayton E. May, the 'Dillinger doctor,' and convicted of conspiracy to commit abortions. The conviction was set aside by the District Court last month, however, on the ground of insufficient evidence." (San Francisco Examiner, November 5, 1939.) (Previous entries, August and September, 1936; November, 1938.) (Previous entries regarding Clayton E. May, November and December, 1938.)

"Dr. Wallace J. Smith, Chico chiropractor, free under \$200 bail following his arrest on six counts of practicing medicine without a license, pleaded not guilty and demanded a jury trial. Justice of the Peace James W. Morgan set the trial for November 1." (Press dispatch dated Chico, October 14, printed Sacramento Bee, October 14, 1939.) (Previous entry November, 1939.)

"Mrs. Hatsigo Kawano, 49, Oakland Japanese, yesterday was charged by state medical inspectors with practicing medicine without a license. The officers stated the woman advertised herself as a 'healer.' She lives at 622 East Eighteenth Street." (San Francisco Chronicle, October 25, 1939.)

"A new battle over the E. C. Hurlbert tuberculosis cure loomed today after the State Medical Board, meeting in Sacramento this morning, revoked the license of Dr. Perley B. Exelby, Los Angeles, who testified in behalf of Mr. and Mrs. Hurlbert at the pair's probation hearing in Los Angeles this summer. Doctor Exelby's license was re-

(Continued on Page 38)

## METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

### III. Measurement of Vitamin A Activity

● It was early recognized that vitamin A deprivation in animals resulted in cessation of growth or—if long continued—in the appearance of a characteristic eye condition known as xerophthalmia (1). These two pathologic effects were both utilized in the first methods proposed for quantitative estimation of this essential food factor.

The earliest techniques for determination of vitamin A were similar in that they all first provided for depletion of the body stores of vitamin A of the rat by restriction of the animals to basal rations free from or quite deficient in the vitamin. In the "rat growth" method, the vitamin A activity of the material under assay was estimated by feeding graded dosages to animals depleted of the vitamin (as gauged by cessation of growth) and recording the ensuing growth response (2). In the "curative technique," the incidence of xerophthalmia served as the criterion of vitamin A depletion (3), and vitamin A activity was estimated by determining the dosage of the test material necessary to establish cure of xerophthalmia.

Techniques were also gradually developed which in some instances embodied features of both the growth and curative methods. Still another technique based on the continuous appearance of cornified epithelial cells in vaginal smears—a further characteristic of vitamin A deficiency in female rats—was evolved (4). Further research showed that colorimetric and spectrographic methods may be adapted to the estimation of vitamin A activities of specific materials (5).

Of all methods for estimation of vitamin A in foods, the rat growth technique appears to be favored today (6). Gradual improvements and refinements—as well as recognition of the existence of provitamins A—have led to development of the growth method now included in the U. S. Pharmacopeia XI. This method requires that young rats weighing 40 to 50 grams (at an age not exceeding 28 days when placed on a vitamin A deficient ration) shall manifest symptoms characteristic of vitamin A deficiency within a period of 25 to 45 days. Rats properly depleted of vitamin A reserve are assembled in negative control groups receiving no supplement, reference groups receiving graded doses of the standard reference material, and assay groups receiving graded doses of the assay material. During the ensuing period of not less than 28 days, the test animals are fed daily doses of the proper supplements. The body weights of the animals are recorded at frequent intervals during and at the end of the assay period. From the average gains in body weight of rats in the assay and reference groups, dosages of assay and reference materials, and the vitamin A activity of the standard of reference, the vitamin A activity of the assay material is calculated.

Many researches (7) have established that commercial canning procedures are without significant effect upon either the provitamins A or vitamin A in foods. Consequently, the canned varieties of foods noted for their vitamin A activities provide valuable, convenient and economical sources of this dietary essential.

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- (1) 1913. J. Biol. Chem. 16, 423 and 255.
- (2) 1928. J. Biol. Chem. 78, 671.
- (3) 1931. J. Dairy Sci. 14, 229.
- (4) 1927. J. Biol. Chem. 73, 153.
- (5) 1938. J. Am. Med. Assoc. 111, 245.

- (6) 1936. The Pharmacopeia of the United States, Eleventh Decennial Revision, page 478.
- (7) 1929. Ind. Eng. Chem. 21, 347.
- 1936. J. Am. Diet. Assoc. 12, 231.
- 1936. Mass. Agr. Expt. Sta. Bull. No. 338.
- 1938. Nutrition Abstracts and Reviews, 8, 281.

*We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-fourth in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.*



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Acousticon is accepted by the Council on Physical Therapy of the American Medical Association.

## BOARD OF MEDICAL EXAMINERS

(Continued from Page 36)

voked after the Medical Board found him guilty of aiding and abetting an unlicensed practitioner in promoting a cure for tuberculosis. . . ." (Ontario Report, October 19, 1939.)

A 19-year-old University of California premedical student, Charles P. Ginsburg, was jailed on charges of attempted robbery and violation of the gun law yesterday, after he assertedly tried to hold up a couple in a parked automobile near 16 Twenty-fifth Avenue North. Neither Ginsburg nor his father, Oscar Ginsburg, of 797 Fifteenth Avenue, could explain the youth's sudden and abortive turn to crime. . . . Inspector Ray Doherty said Ginsburg has no previous delinquency record." (San Francisco Examiner, October 30, 1939.)

"Slander charges brought in justice court by another chiropractor caused arrest and imprisonment in the county jail last evening of Arden Zimmerman, 140 North Sixteenth Street. W. Franklin Morris, in a complaint ob-

tained from Judge Grandin H. Miller, asserted that Zimmerman had attempted to degrade him by attacking his professional integrity. . . . Judge Miller set bail at \$1,000 cash, \$2,000 bond. Attorneys and friends were arranging for the defendant's release late last night. . . ." (San Jose Mercury-Herald, October 21, 1939.)

"Last year, Mrs. Inez Burns, wife of a former assemblyman, was dismissed from custody and prosecution when the San Francisco police couldn't prove their charges that she was running an elaborate abortion mill at 327 Fillmore Street. But yesterday the Federal Government moved in on the case. . . . Charging that in two years Mrs. Burns—also known as Inez Brown—had made more than \$65,000 out of her 'profession,' and that she had concealed the vastly major part of this income, the United States Grand Jury yesterday indicted her on charges of tax evasion for the years 1934-35 and 1935-36. Bail was fixed by the jury at \$10,000. Details of the indictment allege that in the year 1934, Mrs. Burns' gross income was \$45,113.19, of which total she earned through her 'profession' \$43,535.56. Deductions were allowed which resulted in a net income of

(Continued on Page 40)

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## OR BOTH!

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Climate is ideal. Located at 1,000 ft. elevation, 6 miles east of San Jose, overlooking the Santa Clara Valley. A folder will be sent on request.

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## Visiting Staff:

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Harold Guyon Trimble, M.D., Oakland  
Cabot Brown, M.D., San Francisco  
J. Lloyd Eaton, M.D., Oakland

## BOARD OF MEDICAL EXAMINERS

(Continued from Page 38)

\$41,284.32, on which she owed a tax of \$6,173.21. In that year the woman herself fixed a tax return stating an income of only \$4,873.17—barely one-tenth what the Government charges she took! In the following year, the Government goes on to allege, Mrs. Burns took in a total of more than \$30,000, of which \$23,031.47 was from her 'profession.' Although the Government claims she owed \$3,621 in income tax that year, Mrs. Burns paid but \$317.50 on a claimed total income of \$9,593. Mrs. Burns first crashed into notoriety in mid-1938, when she was arrested in a raid on the Fillmore establishment, which was made spectacular by the hectic flight of many women who were in the place at the time the police entered. However, when the case came to trial, the police evidence collapsed. Of

nine women in the place, seven said they were just there 'visiting,' and the other two, who had told policemen that they were there for abortions, gave such fictitious names and addresses that police were unable to locate them at witnesses against Mrs. Burns. Municipal Judge Theresa Meikle dismissed the abortion mill charges, on motion of Roy Rogers, the woman's attorney." (San Francisco Examiner, October 12, 1939.)

"Police and state medical inspectors last night began a renewed hunt for the abortionist whose operation resulted in death for 16-year-old Mrs. Norma Lee Stitt. At an inquest yesterday it developed that the girl, who came here from Douglas, Arizona, had gone to some person whose name she received in Bisbee, Arizona, to prevent motherhood. The girl died Wednesday at the home of her sister,

## SULFANILAMIDE THERAPY

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ESTIMATION  
OF  
SULFANILAMIDE  
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Mrs. Novian Streett, 3825 Walton Avenue. Mrs. Streett yesterday told a coroner's jury the story of her sister's arrival and insistence against all advice on having an illegal operation performed rather than have a child. . . . The jury held that Mrs. Stitt died as the result of a criminal abortion performed by a person unknown." (Los Angeles *Daily News*, October 21, 1939.)

"Adele Millar, beauty shop operator at 177 Post Street, was arrested yesterday by special agents from the State Medical Board on charges of practicing medicine without a license. Inspector Joseph Williams stated he had seized an assortment of materials assertedly used by the beautician in treating skin disorders." (San Francisco *Chronicle*, October 11, 1939.) (Previous entries, September, 1927; December, 1935.)

"The Federal Grand Jury returned an indictment before District Judge Michael J. Roche yesterday, and thereby demonstrated the thoroughness of the United States Government. The indictment charged Robert Claude Perry, 69, with robbery of a national bank by inducing fear in its employees, by assault and placing lives of the employees in jeopardy, and by murder. The Grand Jury voted that indictment knowing full well that it will never bring Robert Claude Perry to trial. Robert Claude Perry is under sentence to die in San Quentin's gas chamber. The indictment was voted in connection with the \$7,500 robbery of the Haight and Fillmore branch of the Bank of America on November 2, 1936. Perry assertedly killed Joe Marengo, janitor of the bank, in order to obtain the keys. The death sentence was previously imposed on Perry for a similar crime in San Diego in March. He killed Jack R. Anthony, bank watchman, to obtain the keys. In indicting the al-

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ready condemned man, the Federal Government, it was learned, was providing against the remote possibility of a pardon or any other display of leniency by state authorities." (San Francisco *Examiner*, October 19, 1939.) It is asserted that Robert Claude Perry is none other than an individual who, under the name of Donald Balfour, was arrested in Palo Alto on a charge of violation of the Medical Practice Act. (Previous entry, July, 1930.) (Annual report, 1931.)

Investigation reports relate that Carl J. Lemster, on September 21, pleaded guilty in the Municipal Court of San Francisco to violation of the Business and Professions Code (Section 2141) and was sentenced to pay a fine of \$400 and serve six months in the county jail, the jail sentence being suspended and defendant placed on probation for a period of two years. It is also reported that "all the evidence seized at the time of his arrest, which included numerous medical instruments, short wave and diathermy machines," was ordered confiscated.

Investigation reports show that Roy W. De Welles, D. C., on September 20, 1939, pleaded guilty to a violation of the Business and Professions Code in the Justice Court at Fullerton, and was fined \$100 or 50 days in the county jail. Thirty-five dollars of the fine was suspended and De Welles paid the \$65 balance.

Investigation reports relate that Lou Gould Sheddan was recently arrested at Oceanside, California, on a charge of violation of the Business and Professions Code, and later pleaded guilty in the Justice Court at San Juan Capistrano,

(Continued on Next Page)



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(Continued from Preceding Page)

whereupon he was sentenced to serve 180 days in the Orange County jail, suspended on condition he will leave California immediately and remain away for a period of two years. Sheddan assertedly claimed that he graduated from the Northwestern College of Medicine in 1894; that his credentials were stolen in Sterling, Kansas, in 1905. Investigation fails to substantiate his statement.

"Dewey Conway, 41, owner of the Arrowhead Herb Company, is at liberty today on \$250 bail, following his arrest last night on a charge of practicing medicine without a license. He was arrested on a warrant signed by Joseph W. Williams, special agent for the State Board of Medical Examiners. Conway was arrested at his place of business by Chico officers. He specifically is charged with diagnosing, treating and prescribing drugs for patients, and advertising a cure-all. Williams reported he confiscated many medical books, drugs and patients' record cards. He said that he will subpoena forty witnesses to testify against Conway, known here as the 'Indian doctor.' Williams said

he took two treatments from Conway, who, in both cases, prescribed medicine and diagnosed a variety of illnesses. It is reported Conway required each patient to sign a card stating Conway is not a physician, but is a herb man. Williams, however, said this does not excuse him from any of the offenses with which he is charged. His hearing has not been set." (Press dispatch dated Chico, October 7, printed Sacramento *Bee*, October 7, 1939.) (Previous entries on Conway Indian Doctor, Chico, January, July, October, November, 1931; January, 1932.)

Investigation reports relate that Elmer Steele was arrested at the Sacramento State Fair on September 2, where he assertedly was recommending and advertising a cure-all medicine and passing out cards using the prefix "Doctor." On September 12 he pleaded guilty before a municipal judge at Sacramento, and was sentenced to ninety days in the county jail, suspended, and he was placed on probation for a period of two years, the terms of said probation, including an order for the defendant to refrain from selling any medical preparations of any nature in a public place in the State of California, outside of a drug store, during the term of his probation.

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*"Two Generations of Appliance Makers"*

**Serodiagnosis of Syphilis: United States Public Health Service, Washington, D. C.**—A new advance in medical science's fight to control syphilis was recently made as the United States Public Health Service published a manual of revised techniques of performance of blood tests.

The volume ("The Serodiagnosis of Syphilis: Part II—Revised Technics of the Eagle, Hinton, Kahn, Kline, and Kolmer Tests") represents the culmination of scientific advance in serology since Wassermann developed the first complement-fixation technique in 1907 and opened the way to the accurate diagnosis of syphilis.

Commenting on publication of the manual, Assistant Surgeon-General R. A. Vonderlehr, Chief of the Public Health Service's antisiphilis campaign, said:

"As broad and far-reaching programs of syphilis control take root as permanent public health services, and as reliance upon the blood test as a diagnostic instrument increases, it becomes vitally important that tests conducted in all laboratories meet the highest standards of excellence.

"Essential to that high standard, experience has shown, is strict adherence to proved techniques in conduct of tests. Experts in serology and clinical methods emphasized this point at the Assembly of Laboratory Directors and Serologists held under the auspices of the Committee on Evaluation of Serodiagnostic Tests for Syphilis and the United States Public Health Service last October at Hot Springs, Arkansas. They requested that the Public Health Service publish the most up-to-date data available on techniques of the most widely accepted tests.

"The originators of the tests have themselves prepared the detailed directions of how to conduct these procedures. Thus, in these few pages is represented the culmination of two decades and more of intensive research and experimentation directed toward the development of more reliable means of the diagnosis of syphilis.

(Continued on Next Page)

## Bequest Forms: Unto the California Medical Association\*

### FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of \$—— to be known as the —— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

\* \* \*

### FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of \$——, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

\* \* \*

### FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

\* \* \*

### FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the —— Gift, the following described real property situate in the County of ——, State of California, and more particularly described as follows, to wit:

\* \* \*

### FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

\* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.



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The Colfax School for the Tuberculous is located in the pine clad Sierra Nevada foothills, at an elevation of 2,400 feet; an elevation free from the fogs of the valleys and free from extremes of heat or cold.

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(Continued from Preceding Page)

"If these techniques are thoroughly understood and carefully followed by every serological laboratory technician, it would mean that no one could raise, in justice, the cry that syphilis control is hampered by unreliable laboratory performance."

This volume is part of the United States Public Health Service program to develop and maintain the highest standards for serologic tests for syphilis. It takes a place with the annual evaluation studies of state laboratories and provisions for financial aid to states for laboratory facilities and training of technicians.

The initial edition of 20,000 copies was exhausted before the manual went on public sale. It was originally issued as a Supplement to Venereal Disease Information, published by the Division of Venereal Diseases, and is now being reprinted.

# VEGEX (MARMITE\*)

## NUTRITIONAL THERAPY DURING PREGNANCY

In presenting the aid Vegex (Marmite) may have, we have said and repeat:

*"Conservatism must be the rule in projecting products for use in human disease. The recovery and life of the patient, the professional reputation of the physician are at stake."*

There is also a policy which physicians will note. Reports, clinical data and medical research are not

followed with a publicity service for public distribution. The years which one in the management spent in food and drug control and public health broadly emphasize that self treatment of disease is dangerous; that accurate diagnosis should and can be had; that one disorder is generally accompanied with other disorders; that it is all a job for medical skill.

### ● AN EXTENSIVE STUDY

For several years studies have been made in England with Vegex (Marmite) and milk in nutritional therapy during pregnancy. The summary report given in the British Medical Journal, Jan. 22, 1938, page 191, shows that a total of over 10,000 expectant mothers received Vegex (Marmite) with milk and milk foods, and a total of over 18,000, in the same area, did not receive these food additions.

### ● THE RESULTS NOTED

Among the women having Vegex (Marmite) and the milk and milk foods—the exact number was 10,384—the puerperal death rate from sepsis was only 0.09 per 1,000, that is, only one death. Among the group of women—the exact number was 18,854—not receiving these food supplements, the death rate was 2.91 per 1,000.

### ● THE POSTULATED REASON

The workers postulate that:

"the vitamin B complex, which was a neuromuscular stimulant, and possibly when this preparation was taken in the last months of pregnancy it enabled the women to deliver herself in certain cases when otherwise she would have had to undergo operative intervention. The vitamin B complex also had a special action on the skin and mucous membrane, and it might be that the action on the mucous membrane of the uterine passages diminished the tendency to puerperal sepsis."

### ● EASILY BORNE AND PALATABLE

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\* The British name for Vegex.

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Iron as Fe.....	0.048
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